AFFIDAVIT

Of

Describing Personal Experiences and Observations of Working Conditions, Processes, and Policies, during the Period of 1979 through 1983

at

Nuclear Metals, Inc., West Concord, Massachusetts

I, residing now at provide this affidavit, detailing my own experiences and observations during the subject period in support of the petition submitted by together with similar affidavits from other former NMI employees. While some of what I offer here may seem subjective and anecdotal, I am pleased also to provide, from my personal files, copies of certain company documents and memos that will serve to validate much of what I present herein.

Early in 1979, I took what I thought would be a one-year leave of absence from an administrative position at U. Mass./Boston and sought employment on the night shift (almost anywhere) when my daughter was an infant. Hired soon thereafter as a third-shift at Nuclear Metals, Inc., I would never have expected it to be the beginning of a twenty-four year career. In fact, I was the first of three women hired by the company that spring into a position (See attachment 1.) and the only one who stayed more than a few months (See attachment 2). When I reported for my first night of work on April 1st, the men were certain that I was a joke being played on them by their foreman...until I came back to work the next night.

I was promoted in 1980 to and in 1981 to I later worked in until my final separation from the Company in 2003, never returning to U.Mass.

In 1979, there were no safety staff assigned to the third shift. I was given a brief "safety orientation" by a man whose name I remember, but will not mention here, as I later came to think of him as a pretty nice guy, if somewhat of a cynic. He died young, only a few years later, of a massive heart attack. This man explained to me some basic safety procedures and about picking up a TLD badge as I entered the plant each night. He also provided me with a pair of safety glasses. He concluded with, "Don't pick your nose and eat it and you'll be fine." I knew it was a joke, and probably intended to offend me, but I have never forgotten that. The entire orientation lasted about 5 minutes.

Nuclear Metals was at that time in a period of rapid expansion, owing to the then recent awarding of various government contracts, and production rates seemed to be top priority. Machines had to run. 1000 pcs/night was the expected norm on the Breaks were staggered and often someone else would double up on machines when it was your turn to go to the cafeteria.

On the we ran DUAP end mills and Dubied tracer lathes to produce GAU-8 ammunition for use on A-10 Warthogs. Both types of machines could be preloaded with multiple blanks (extruded and heat treated U ¾ Ti), which rolled into chutes after running through the machines. Machining chips dropped into a coolant bath below.

Although the machines themselves were enclosed and vented, the pyrophoric nature of DU caused the chips to burn when cut and, when they piled up above the level of the coolant, a smoldering, sometimes flaming fire would develop. We machine operators were then expected to open the machine door, rake the chips back under the coolant to douse the fire, and to remove chips into a nearby, coolant-filled barrel when necessary. It was also necessary to open the machine doors to clear jams and adjust or change tools. Depending on a variety of factors, this could be required anywhere from a few times each shift to several times each hour.

Although, as stated above, I remember clearly wearing a TLD badge during my year on the I do not recall the use of PAM's (Personal Air Monitors) in that work area at that time, nor were we given or expected to use respirators in 1979, although they were at times issued on the in later years. On occasion, perhaps 3 times during that year, there were fires on the that were bad enough to close off the area for hours, after burning chips fell unnoticed behind the coolant baths. In at least one case this ignited leaking transmission oil and rags that someone on an earlier shift had placed to keep the oil from running across the floor. We beat the fire out, but the smoke lingered and we spent the next couple of hours in the lunchroom.

Regular breaks were also taken in the lunch room up the hall in what was designated B Bldg. Uniforms were not changed when exiting the work area and adherence to any shoe change procedures? This was third shift; we were all tired and in need of coffee; breaks were short, and there was no one there to check on us. I wore a pair of my own hiking boots on the floor, until new safety shoes arrived for me after about two weeks on the job. It was also common practice to bring a second cup of coffee back with us to our machines. In warm weather, large containers of Gatorade and cups were available to workers in the production (i.e. controlled) areas.

For those with a smoking habit, breaks were never long enough and, with no ash trays in the production areas, burning cigarettes were placed between puffs, butt end down, on work benches, and ashes were flicked into the afore mentioned coolant tanks. I later realized that this practice was common (in those early years) where the foreman was himself a smoker.

In 1980, I was promoted to still on third shift and still dealing primarily with GAU-8 penetrators, but now concerned with other operations such as casting, extrusion, and heat treating, as well as the final machining. Quality at that time was located in A Bldg. directly above the executive offices and in close proximity to the cafeteria that was used by all employees on all shifts.

Samples of material were brought for testing in small boxes from the manufacturing area to QC but, if a sample failed inspection, the entire lot, approximately 1,000 lbs of DU material was moved from the floor and up the hall for 100% inspection. To my recollection, material was not transferred from one cart or basket to another when it left a manufacturing area, thus allowing the wheels to track contamination from the

"controlled" areas into uncontrolled work areas. It was not at all uncommon to see several lots of material lining the hallway pending inspection by QC.

Although several production departments were by this time running night and day, often six and sometimes seven days a week, there were still relatively few safety or maintenance technicians attached to the night shifts. Therefore, all 2nd and 3rd shift workers were encouraged and many agreed to be trained for the "Fire Brigade". This was fairly serious stuff and involved formal training with instructors from the Massachusetts Fire Fighting Academy. Classes took place on Saturdays with lecture and slides in the cafeteria and practical lessons using real fire (wood with some sort of accelerant as I recall), various types of extinguishers, fire hoses, air packs, etc., in the back yard.

We shared jokes about how we feared the flames and the professional firemen feared uranium. I recall one instructor, who was sitting during a break from class on a basket of M774's (U ¾ Ti penetrators used in the Abrams M1 tank) in the hallway. When I told him what they were, he jumped up so quickly that he spilled his soda, declaring, "But it just looks like brass or something!" I suggested that he pick one up and he'd know it wasn't brass. He declined.

Should an alarm sound at any time, Fire Brigade members were expected to report from wherever they were in the plant and, if there were not enough members on duty at the time, they might also be called in from home. With this system in place, it was rarely necessary to call in the local fire department, but in retrospect, it may also have provided an artificial sense of security—if we didn't have to call the fire department, it must not have been too serious. I think there were also times that the fire department was called in after the fact to inspect and certify that a small fire had been satisfactorily dealt with.

I recall one instance in particular:

In this case the fire was burning, shooting tall flames and sparks from a large drum of chips. Initial standard procedures had failed to put it out. Sensing real danger to people and plant, Tom Weaver, a night shift chip handler (and also since deceased), hopped into a fork truck, grabbed the thing with hydraulic claws, and drove the flaming barrel out the overhead door and into the back yard where there was a water-filled pit into which it was dropped. We were later told that magnesium chips from another operation had inadvertently been mixed with depleted uranium and that combustion was essentially spontaneous.

I am not sure which year this fire took place, but construction on Bldg E had not yet been started. I do know it was winter, because one man slipped on ice while running out a back door and suffered a rather severe shoulder separation when he fell backwards with his Scott Air Pack strapped securely on his back. We may have called the Fire Department for him that night.

Plans for the Company's Carolina Metals plant were underway by 1981, but the Reduction process was running in D Bldg at the Concord location. UF4 powder (greensalt) was mixed with magnesium and heated to produce DU derby, with

magnesium fluoride as the waste product. Although the operation and equipment were still under development, the department was running on three shifts, plus weekend overtime. Pressure to produce was extreme, as a long-time vendor facility (Tennessee Nuclear) had been shut down by a strike (Atomic and Chemical Workers).

Both occupational and radiological safety departments were at this point staffed on three shifts, however there were still relatively few of these technicians working at night. Furthermore, some of these were transfers from production jobs with little or no relevant training. TLD badges were picked up on entry at the guard station, but air sampling PAMS were distributed by safety staff and were not consistently available to workers at the start of shift. When they were, the data collected could not always be compiled for use in a timely manner. In a memo dated March 11, 1981 (See attachment 3), Vice President Al Gilman requested assistance from Vice President Dan Baskowski in providing computer terminals, programs, and staff to address this need. In this memo, Gilman lists several people, including myself, who had some computer background and who could assist, but not take the lead in this effort.

At about this time, I was again promoted to become the Company's first (See attachment 4.) The theory was that, if the process ran correctly, the final product would meet specifications, thus reducing the need for 100% inspections (i.e. less material in the hall, I suppose.) In this position, my responsibilities were expanded to include M774 and my work hours were entirely flexible in order to cover operations on all three shifts. (See Attachment 5 for complete employee list in 1981.) Step one was to document working procedures, combining engineering specifications with actual work processes to develop standard operating procedures (SOP's).

As such, I spent a great deal of time back on the production floor, observing and interviewing workers on the line, including the above-mentioned Reduction department. In this capacity I regularly received minutes of meetings of a multi-disciplinary committee that was working to optimize that process. Because the starting material, "greensalt", was a light, powdery substance that could easily become airborne and was subject to tracking from one area to another on shoes, uniforms, etc., these meetings often touched on health and safety. They were chaired and minutes were authored by the Vice President of Engineering, Paul Lowenstein.

One particular set of minutes, dated July 16, 1981, deals entirely with these issues. (See attachment 6.) Despite continued problems with timely processing of exposure data, 9 people (>30%) in the Reduction area had been pulled from work due to high readings in the prior quarter. Additional points made by attendees at that meeting include:

- Little or no ventilation at the blender (mixing greensalt with magnesium)
- Lack of space for cooling vessels; up to16 on the floor at one time
- Need to link high readings to actual work performed
- Newest workers and those who are most eager have highest readings
- Foremen should oversee and supervise work; avoid the temptation to pitch in and perform work themselves
- Data compilation reported to be still lagging due to lack of staff
- Need for better maintenance coverage on night shifts

- Conclusion: timely radiation data is needed to "...protect the men and the job."

A few days later I met individually with Paul Lowenstein to share my own observations and to report various things I had heard in the course of my work while talking with men assigned to the reduction area. Paul distributed a summary of our conversation in a memo dated July 20, 1981. (See attachment 7--I have also included copies of my own follow-up memo to him as well as the hand-written talking points I brought to the meeting.)

- Health Physics staff sometimes arrive to set up PAM's well after a shift has begun.
- Health Physics personnel cannot relate exposure data to work practice, because they do not remain in the area long enough to observe work as it is performed.
- Workers generally lack sufficient understanding of terminology and implications related to radiological exposure
- Adequate cleaning of slag from derby within the ventilated "breakout pit" is so difficult that the job is often completed on the open floor. At times, smoldering fires occur.

Although I have no documentation to back this up, I feel compelled to mention here another personal observation concerning the use of PAM's in Reduction and other operations that required considerable physical activity such as the Foundry, Heating Treating:

A PAM consisted of a battery-powered pump worn on the belt, a neoprene tube that ran up the worker's back and over the shoulder, and a filter mounted in a plastic head that was supposed to be clipped to the technician's collar. This setup was intended to provide a reliable measure of contamination in the air that was actually being breathed in by that particular worker. The contraption was, however, uncomfortable and somewhat restrictive of free movement. It was therefore not uncommon for a worker to leave the thing running and to place it on a bench or table that was close by, but not exactly in the location of the work being done. Consider, for instance, a Foundry technician loading DU derby and recycle material, both covered with surface oxidation, into a crucible that had itself absorbed radiation from multiple uses, and the PAM measuring airborne contamination several feet away.

Shortly after these meetings took place, there was a change in leadership within the Health Physics Department. The prior supervisor, Frank Cornetta, was reassigned to "Special Projects" and Frank Vumbaco was promoted from Compliance Auditor to a position that put him in charge of radiation safety programs—I do not recall the exact title.

Just prior to all of this, there had been an attempt by the United Steelworkers of America to unionize the hourly production workforce of Nuclear Metals. The backstory, while interesting, is not relevant to this petition and I will not go into detail here. I will, however, summarize by saying that a relatively small number of NMI employees were

enticed and worked hard on behalf of the union. My own experience as an SEIU shop steward while working at U.Mass predisposed me to strongly oppose such a move and I worked with other like-minded employees to prevent the action. Worker safety (both occupational and radiological) was among the matters raised in the debate.

In the end, the Steelworkers failed to collect sufficient signatures to even bring about an election. Nevertheless, the dialogue had raised a number of questions that demanded attention from a management team that was already severely stressed by the challenges of rapid expansion of the company's size and product range. With the full knowledge and encouragement of certain company officers, I met several times that spring and summer with people from both sides of the union question. On behalf of that group, I drafted a memo that was presented to the company President, Will Tuffin. (See attachment 8.)

This document centered on a call for a comprehensive written statement of personnel policies and establishment of an employee advocacy committee. Section VII comments specifically on safety, while noting the '...company's [then] current attention to industrial and radiation safety...." The section concludes with the following:

> "Mechanisms for constant solicitation of safety concerns and continuous education of all employees to safety precautions and procedures should minimize the need for any section of the Safety Department to function as a policing agency and increase their availability to tend to their other responsibilities."

And the last of the four Summary Recommendations contained in the document reads as follows:

> "This group feels that the nature of products and processes at NMI requires that management make safety a primary consideration in all decisions and activities and in ways that are understandable and evident to all employees."

This was 1981.

The was assembled that fall with membership representing all disciplines and staffing levels, notably including 4 VP's as well as the President, Will Tuffin. before cycling off approximately three years later. Meetings were frequent and at times intense. Issues of all sorts were taken up and were confronted head on in what consistently struck me as frank and honest discussion.

On August 6, 1982, the first edition of NMI's Personnel Policies and Procedures Manual was distributed to all company officers, managers, and supervisors with a cover memo from VP of Finance, Dan Baczkowski and an introductory statement from the President, Will Tuffin.

In addition to policies related to more commonplace personnel matters, the first official documents related to Smoking, Safety, Eating and Drinking in Plant, and Personal Property on Company Premises were included in the notebook. (See attachment 8.)

Furthermore, individual supervisors were warned against personal interpretation in their application of these policies. If clarification was needed, they were to ask for it.

To emphasize the continuing relevance of this committee's work and the seriousness with which management considered the new policies, I include with this affidavit excerpts from minutes of the minutes that relate to:

- 4/29/83: VP Gilman acknowledges that changes in methods of measuring radiation exposures in the foundry raise concern that past methods have been inadequate and perhaps inaccurate. Investigations are ongoing. (Note this evolved into a separate series of meetings and further changes in work practices.)
- 8/5/83: Past practices with respect to personal property on company premises have not been uniformly or effectively enforced. The company cannot assume responsibility for the risk of damage or loss, including the possibility of radioactive contamination. A new policy was issued a few months later (included in Attachment 9). For some workers, the most significant item covered by this policy would have been the portable radios they carried with them in and out of their work area each day. The policy also addressed individually owned tools, even briefcases.
- 6/24/84: With warm weather having arrived, employees missed having Gatorade available in their work area. Frank Vumbaco states that the possibility of contamination is the reason this is no longer allowed.

(See attachment 10.)

I also include herewith an undated early draft (but which I believe was first discussed in August of 1983) of what soon thereafter became NMI's "Radiological Work Permit Program". (See Attachment 11.) This program overlaid management's obligation to provide adequate protections and education with each employee's responsibility to respect and observe prescribed procedures in order to protect his or her own personal safety while carrying out assigned tasks.

CONCLUSION

This was an exciting and critical time in the history of Nuclear Metals, Inc. I would not be surprised if many other former employees remember it, as I do, a challenging and intellectually stimulating period in their own careers. I expect this is true also for those who made up NMI's executive team. It was my assessment at the time, and so it remains in retrospect today, that they were in those days quite overwhelmed by the pressures of external factors compounding rapid expansion and change within the Company. These were men who grew up in a collegial R&D environment and who now struggled daily to balance their aspirations as leaders in the growth and success of the corporation with a sincere concern for the welfare of hundreds of employees.

Being able to meet aggressive delivery schedules on these early government contracts was critical to receiving the follow-on work that would justify (and recoup) the huge investment that was then being made in the Company's plant and equipment. Production quotas were set high, with cash bonuses for all when they were met. Overtime was not only plentiful, but sometimes obligatory, and many people put in a lot of it. Operations ran hard and fast, even as Engineering, Facilities, and Safety offered frequent

modifications to equipment and material handling processes. New and more sophisticated methods of monitoring exposures provided better data, but also revealed prior deficiencies.

References to all of these points can be found in the various documents that I have attached to this affidavit. The very fact that many of these changes were made, and often explained as improving safety and/or limiting personal exposures to radiation (airborne or otherwise), raised concerns among workers and management alike for what had gone on before.

Issues that were raised and considered in earnest in 1981 led to changes in policy and procedures that were developed in 1982 and applied in 1983. The long-planned construction and commissioning of E Building in 1984, as well as the move of the Reduction operations to the South Carolina plant, made it possible for the first time to contain all processing of depleted uranium materials at the Concord, MA location, from receipt of input stock, through manufacture and test, to shipping of finished parts and waste handling, in a continuous flow without crossing from controlled to uncontrolled areas.

Why I saved the attached documents and other personal notes (many not attached herewith) from this period, I'm not sure, and I had not looked into these boxes in more than twenty-five years. The union question that arose in 1981was highly charged, however. More than likely, I was afraid the tide would turn one day, someone would try to fire me, and that I'd need the stuff to defend myself.

All of that and my faithful respect for the Company's most senior management team during those years aside, there is no doubt in my mind that workers at NMI during the years 1979 through 1983 were subject to unmonitored exposures to airborne radiation.

Signed this 28th day of September, 2011

Notarized by:

Patricia A. Clifford
9/28/2011

PATRICIA A. CLIFFORD
Notary Public
Commonwealth of Massachusetts
My Commission Expires
August 26, 2016

ATTACHMENT (1)

Office Memorandum · NUCLEAR METALS

TO : Distribution **DATE:** 3-26-79

FROM : Personnel

SUBJECT: New Hire ✓ Termination

Name_

Department___

Telephone Extension_____

Effective Date 79 9:00 PM

Shift 3RD

Supervisor_____

Distribution:

Dept. Mgr.	General Foreman
Foreman	Guard Desk
Payroll	Switchboard
Clinic	Uniforms
Safety	Director of Adm.
President	Personnel

8/76 bj

ATTACHMENT #10

to: Distribution

ject: MEETING OF APRIL 29, 1983

ate: May 13, 1983

have a chance to be interviewed for the job and also as a matter of general information to all affected employees.

4. A question was asked about company policy in disability situations where employees become unable to physically perform their assigned duties. There is no explicitly stated company policy but it has always been our practice to try to find meaningful alternative work in such cases at a job that does not reduce the individual's income too severely. Although we cannot guarantee that we can successfully find such alternative work in all cases, we have been successful in the few cases that have occurred over the last ten years and fully intend to continue this same attitude in the future. In any case where an employee is found to be totally incapable of performing any meaningful work, we have the short term and long term disability insurance plans to provide continuity of income.

5. Al Gilman reported on concerns of Melting and Casting personnel about changes in methods of measuring radiation exposures in the Foundry and concern that past methods have been inaccurate resulting in excessive exposure. The reasons for the changes and the inadequacies of old measurement methods are the subject of ongoing investigation and are being reviewed in a special series of meetings being conducted separately with Foundry personnel. In addition to radiation exposure, other topics being reviewed with Foundry people include clothing items, personal comfort, and other matters related to a relatively complex set of operating conditions that people feel have significantly changed the nature of the work. Al and other Health Safety people will be asked to report further developments in this area as they occur.

6. Rene Santini updated the group on efforts which are ongoing to reassign people from areas where specific positions are phasing out. All Reduction area employees with the exception of several who have been retained to dismantle and decontaminate equipment for shipment to CMI have been placed in alternate positions. Later on in the summer it is anticipated that further reassignments may be necessary if business levels indicate a cutback in activities in the CAF area. The present outlook also anticipates some reassignments from Fabrication and Melting & Casting. A large number of positions are presently posted on the openings list and a secondary list of potential future positions has been identified to absorb any people that might have to be reassigned. People in areas that may be affected are encouraged to clarify their own situation by discussion with their Supervisors and Managers and watch the openings list for alternate positions that may be desirable. It continues to be our intent to accomplish job reassignments through open posting so that the qualifications of any interested employee can be considered for any particular opening.

Memo to: Distribution
Subject: MEETING OF FRIDAY, AUGUST 5, 1983
Date: August 31, 1983

3. The lack of clear and consistent information on employee absences was again brought to our attention. Improvements in this area are being pursued by discussions in the Personnel Department with our data processing people.

4. It was pointed out to the Committee that little progress has been made in providing an eating area and vending machine snack services at the Acton office facility. Betty Eveland was asked to follow up expeditiously on this situation and report at a future meeting.

5. The Committee was advised of the results of discussions by the Perfect Attendance Committee regarding the effect of absences due to work-related disability on quarterly perfect attendance awards. The Committee has arrived at a decision that if an employee has perfect attendance for six weeks or more in any quarter in which they suffer an absence due to a work-related disability that employee will be eligible for the perfect attendance award for that quarter. Work-related disabilities are defined for this purpose in the same manner as they are defined or recognized for Workman's Comp insurance coverage. In addition to the six-week rule the employee must meet all other applicable rules for perfect attendance qualification.

6. The Committee reviewed a draft policy statement dealing with control of employee personal property on company premises. Essentially, the proposed policy statement states that people bringing their personal property into the plant in the future will personally be responsible for their own property and that such property must be registered with security guards on entry. For obvious reasons the company can assume no responsibility for the risk of damage or loss to employees' personal properties, including the possibility of radioactive contamination. A copy of the proposed policy statement is attached for everyone's review. You are encouraged to pass on your comments for further consideration at a future Employee Relations meeting.

   Although this policy statement is reflective of a long-standing company view, it is also recognized that these practices have not been uniformly or effectively enforced in the past. Therefore, the implementation and enforcement of the provisions of this new policy will take place in such a way that will not cause undue hardship or monetary loss. For example, it has recently come to my attention that some people have radioactive watches or personal jewelry that has been confiscated by Safety personnel. Because of the lack of clear instruction in the past, the company will reimburse employees for the reasonable value of these items.

first discussed 8/5/83 ?

ATTACHMENT #11

RADIOLOGICAL WORK PERMIT PROGRAM

"A FORMAL APPROACH TO RADIATION PROTECTION"

This Radiological Work Permit (RWP) Program was developed to provide all NMI employees with a better understanding of the Radiological Health and Safety measures required for each job. Each job function and machine has hazards associated with them (i.e., CNC Lathes - chip fires).

The RWP Program attempts to provide this guidance through work permits. Standing RWP's have been established for each area and some for specific machines. These are very basic outlines for personal protection. You may qualify for several standing RWP's at once. These standing RWP's, when signed by your supervisor, indicate that you know this specific job. I am sure that everyone knows that attempting to run a machine or process without experience could cause severe injury to you or your fellow workers. Performing a task without an RWP for that task can not be tolerated and will be a violation of the RWP Program. Your supervisor will explain to you the tasks that require RWP's. Being the actual operator of a piece of equipment or area, I am sure you have more knowledge of the hazards than we would. Please relay any information to us or your supervisor. We will be improving these permits as the program progresses.

Another type of RWP is the Special Work Permit (see attached). This special RWP is assigned to unplanned maintenance or R&D projects. These operations often present the highest potential for personal exposure to uranium. As a result, all permits shall be strictly adhered to.

Supervisors and Engineers should be cautioned against exercising their personal judgement on Health and Safety matters. As a rule, any work taking place in a restricted area that has not been evaluated by the Health and Safety Departments shall require a Special RWP.

OUTLINE

Standing RWP's

1). Includes all employees.

2). Detail precautions for each machine and each process.

3). Only workers trained and familiar with each process (as evidenced by the signatures of worker and supervisor) shall be allowed to perform each task.

4). Supervisors are responsible for their workers' adherence to the written RWP's.

Special RWP's

1). Required for unscheduled projects in restricted areas.

2). Direct Health Physics involvement is required.

3). The detailed personal protection will be required.

4). Violations will be reported to Supervisors first, later the ALARA Committee if necessary.

RADIOLOGICAL WORK PERMIT PROGRAM

"A FORMAL APPROACH TO RADIATION PROTECTION"

Supervisor Responsibilities:

* Supervisors should review the Standing RWP's. Their recommendations and approvals are required.

* Supervisors will assign workers to the appropriate RWP's. Supervisors will ensure that the workers assigned to each RWP are trained and completely familiar with each process and each RWP.

* Violations by workers will be brought to the attention of the Supervisor.

* Continued non-compliance will result in a report of the Supervisor and worker to the ALARA Committee. (This committee consists of R. B. MacKay, H. F. Sawyer, A. R. Gilman, F. J. Vumbaco and R. Kruszkowski)

RWP COMPLIANCE STATEMENT

Detailed below is a description of the compliance process of the RWP Program and how it is incorporated into the NMI policy concerning discipline:

Personal Violation - This type of violation by definition indicates a disregard for HP detailed personal Radiation Protection Procedures such as the wearing of glasses, badges and shoes, the prohibition of smoking and eating in restricted areas, and the adherence to proper change area procedures. The individual employee is accountable for this type of violation and his supervisor will be directed to insure continued compliance.

Process Violation - This type of violation indicates a failure of Manufacturing to explain and have implemented the HP Radiation Protection Procedures detailed for each process (i.e., equipment care, chip accumulation, ventilation). The supervisor will be accountable for this type of violation if it has not been detailed to his worker. The employee will be required to follow these procedures.

Every violation shall be documented (see Fig. 4-3). Violations will require the implementation of the discipline policy as detailed below:

1st and 2nd Violation Stage 1 - Discussion between the Supervisor, employee and HP Staff member. The Supervisor explains the need for the rules and standards that apply and encourages the employee to comply while expressing confidence that one can and will improve.

3rd Violation Stage 2 - If the offense is repeated and is viewed as more serious, the Supervisor and HP Staff member again discuss the problem with the employee emphasizing the heightened importance. To convey seriousness, a Problem Discussion Form is written recapping the discussion and confirms the employee's agreement to improve. It is important at this stage and throughout the process that the Supervisor refrains from threats or intimidating style that will create negative barriers to effective communication. A copy of the form is sent to Personnel.

4th Violation Stage 3 - If the problem continues, the worker will be removed from the floor. It will be explained that their inability to conform to the rules is endangering themselves and their co-workers. The Personnel Manager will be notified immediately. A Decision Making Leave will be given. The worker will be allowed to return to the floor only when he demonstrates a renewed appreciation for the rules.

5th Violation Stage 4 - This violation will notify the Personnel Manager to go to Stage 4 of Personnel Policy No. 6.1. This stage brings a recommendation for the discharge of the offender before the Personnel Committee for a decision.

Office Memorandum · NUCLEAR METALS

ATTACHMENT #2

TO : R. B. MacKay DATE: 12 December, 1979

FROM : B. E. Eveland BEE

SUBJECT: Extra Locker Room Space

Have temporarily solved the problem of lockers for new employees (and the space to put them in) by talking to this morning.

It is agreed that the Woman's Locker Room will be turned into additional space for male employees until your additional space and lockers can be provided elsewhere.

This is on an emergency basis only, and will revert to a Female Locker Room as soon as possible so that we may continue to hire female production workers when available.

The only things that need to be done before turning this area over are:

1. Have her locker moved into the adjacent Ladies Room. I believe she has been using two.
2. Move clothes rack into Ladies Room for clean uniforms and her street clothing.
3. Install slide bolt on Ladies Room side of the connecting door.
4. New signs designating LADIES and MEN'S areas.

quickly agreed to this change, realizing that we are destitute for the space.

Will you make the necessary maintenance requisitions so the transition can take place as soon as possible and let me know when all is ready?

12/13 Xc: RBM/HFS/BEE

cc: D. Baczkowski ✓

1. should be commended for her thoughtful consideration
2. are we any closer to a more permanent solution?
3. what about double tiered locks

DB

Office Memorandum • NUCLEAR METALS

ATTACHMENT #3

TO : Dan Baczkowski

DATE: 11 March 1981

FROM : A. R. Gilman

SUBJECT: SAFETY/QC COMPUTER TERMINAL

I understand the wiring for a terminal in Steve Pearson's office has been roughed in, and that what is needed now is installation of a terminal, plus appropriate programs to be written.

Programs:

We're in need of the following programs, and can offer some within-the-department capability to write and to modify such programs:

1. TLD (Film Badge): Tracks people vs. assigned badge numbers, converts milli-volts of charge on the TLD chip into units of radiation, tracks cumulative totals, warns of close approximation to allowed limits.

2. 774 Bond Room: A sort-and-present-data program. Accepts random inputs (serial number vs. reason defective) and re-states data on demand by serial number, or by defect type, or by amount of deviation.

3. Charpy Impact Data: Sort-and-present. Accepts random input, re-sorts to meet needs of a given shipment or report.

4. 774 Process Audit: Accepts lot data for chemistry, hardness, and internal soundness by date of melting and date of heat treat, then looks for regressions and match-ups useful to process understanding and control.

5. 774 Control Charts: Percent defective vs. lot number for ten parameters for which ARRADCOM has asked tracking data.

6. In-Process Performance: Moves a window, perhaps 10 lots wide, through the in-process performance data to track improvement with time.

7. Core Lot Performance: Sort-and-present. Accepts random inputs, prints out as needed for shipments.

8. Air Sampling: Tracks in-plant air, effluent air, and operator's breathing zone data, looks for trends to warn of future trouble, and match-ups to identify particular persons or operations as contributing to quality problems.

Personnel:

I understand that the following persons within my department have "some" programming capability. "Some" should be defined as needing coaching regarding this particular computer and its language conventions:

Steve Pearson
Mike Hardy
Chuck Sullivan
Tony Carpenito

Additionally, Kim Purinton and Carrie Flood have operational capabilities, again after some coaching as to the particular disciplines for this computer.

Accessing:

We'll need to use the computer on evening's and occasional weekends. I understand this can be done with appropriate interlocks and controls.

cc:

Office Memorandum · NUCLEAR METALS

ATTACHMENT #4

TO : Distribution DATE: 6 April 1981

FROM : S. L. Pearson SG2

SUBJECT: QUALITY ASSURANCE DEPARTMENT ASSIGNMENTS

Two new positions have been added to the Quality Assurance Department to meet the growing demands of our expanding government contracts.

joined us in early January as a Quality Assurance Engineer. Mike came to us from General Dynamics in Groton, CT. He has a B.S. in Industrial Technology from the University of Lowell. His assignments are in configuration management, data management and engineering support to Q.C.

has accepted the position of Process Auditor and will join us on 7 April 1981. Among many functions she will be maintaining the log book and current inventory of the Bond Room for the M774 material, she will also be performing audits of the many production processes which are required by our government contracts.

Congratulations and Good Luck to both!

cc:

All Bulletin Boards

Congratulations on your current assignment - it is an important position. As I'm sure you'll do very well at it. The audit function as the opportunity this permits to interact with other personnel ~~represents~~ provides many occasions for interesting positions throughout the Company - something I know you'll do well at.

Best wishes,
Will Tiffin

ATTACHMENT #5

DEPARTMENTAL STAFFING LEVELS

06/02/81

DEPARTMENT	APPROVED STAFFING	INCUMBENTS	OPEN POSITIONS	REMARKS
402/403 Purchasing/ Materials Control	16	15	1	
403-Shipping/Receiving	12	12	0	
501-Manufacturing/ Facilities	18	15	3	
502-Fabrication (In-House)	51 (10)	49 (1 Temp)	2 (10)	
503-Melting and Casting	54	52 (1 P/T)	2	
504-Downstairs Machine Shop, CNC, Multi-Spindle	76	60 (inc 1 pt,lt)	16	
504-CAF Line	42	32	10	
506-Hazardous Waste	23	23	0	
508-REP Operation	30	30	0	
509-Maintenance	75	70 (1pt)	5	
660-Engineering	20	20	0	
670-Quality Control	44	41 (Inc. 2 P/T)	3	
770-Sales	11	9	2	
890-Administration	7	7	0	
892-Accounting	15	13 (Incl. 1 P/T)	2	
894-Personnel	13	13 (Inc. 5 P/T)	0	
895-Safety	27	25 (Inc. 1 P/T)	2	
896-Security	12	12 Incl. 6 P/T)	0	
In-House Recruitment	(10)		(10)	
TOTALS	546	498	48	

PERSONNEL LIST

FUNCTION: Department EFFECTIVE DATE: 06/02/81 .1

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Manager/Materials	1		
	PURCHASING (402)			
A	Purchasing Agent	1		
A	Buyer/Expeditor	1		
A	Expediting Specialist	1		
A	Secretary	1		
A	Clerk/Typist	1		
	MATERIAL CONTROL (403)			
A	Stores Supervisor	1		
A	Stores Clerk	2		} 7
A	Inventory Control Clerks	5		
B	Inventory Control Clerk	1		} 2
C	Inventory Control Clerk	1		
	UNIT TOTALS	16	INCUMBENTS 15	OPEN POSITIONS 1

PERSONNEL LIST

FUNCTION: DEPARTMENT ____ EFFECTIVE DATE: 06/02/81 .2

SHIFT	POSITION	#	INCUMBENT	REMARKS
	SHIPPING/RECEIVING (403)			
A	Supervisor	1		
A	Clerk/Typist	1		
A	Clerk/Drivers	2		2
A	Shipper/Receivers	4		4
A	Scrap Monitor	1		1
	GAU-8 PACKAGING			
A	Packaging Technicians	2		2
B	Packaging Technician	1		1
	UNIT TOTALS	12	INCUMBENTS 12	OPEN POSITIONS 0

PERSONNEL LIST

FUNCTION: MFG. MANAGEMENT - EFFECTIVE DATE: 06/02/81 .3

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Vice President Mfg.	1		
A	Secretary	1		
A	Manager, Machining	1		
A	Mfg. Engineer	2		
A	Production Manager	1		
A	Production Engineer	1		
A	Prod. Control Spec.	1		
A	Facilities Manager	1		
A	Newsite Coordinator	1		
A	Engineers	6		
A	Draftsperson	1		
B	Plant Supervisor	1	_____	
	UNIT TOTALS	18	INCUMBENTS 15	OPEN POSITIONS 3

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .4

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Foreman	1		
A	Leadman	4		} 4
A	Sr. Technician	1		1
A	Technicians	27		27
A	Welder Technician	1		1

(continued next page)

UNIT TOTALS		INCUMBENTS		OPEN POSITIONS	

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont.) EFFECTIVE DATE: 06/02/81 .5

SHIFT	POSITION	#	INCUMBENT	REMARKS
B	Leadman	1		1
B	Technicians	16		16
C	Leadman	1		1
C	Technicians	8		8
C	Ext. Press Operator	1		1
	UNIT TOTALS	61	INCUMBENTS 49	OPEN POSITIONS 12

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .6

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Foreman	1		
A	MELTING/CASTING Technicians	16		16
A	Utility Man	1		1
B	Foreman	1		
B	Technicians	6		6
	REDUCTION			Replaces leaving 81 Replacement for leaving 81
A	Foreman	1		
A	Utility Man	1		1 (cont'd next page)
	UNIT TOTALS		INCUMBENTS	OPEN POSITIONS

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont.) EFFECTIVE DATE: 06/02/81 .7

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Technicians	9		9
B	Foreman, Reduction	1		
B	Technicians	9	(P/T)	9
C	Foreman	1		
C	Technicians	7		7

UNIT TOTALS	54	INCUMBENTS	52	OPEN POSITIONS	2

PERSONNEL LIST

FUNCTION: DEPARTMENT ___ EFFECTIVE DATE: 06/02/81 .8

SHIFT	POSITION	#	INCUMBENT	REMARKS
	DOWNSTAIRS MACHINE SHOP			
A	Foreman	1		
A	Leadman	1		1
A	Machinists	19		19
A	Band Saw Operator(temp)	1		3
A	Centerless Grinder Oper	1		
A	Tool Crib Attendant	1		Temporarily working in 895
B	Leadman	1		1
B	Machinists	4		4
B	Radial Drill Operator	1	_____	1
	UNIT TOTALS		INCUMBENTS	OPEN POSITIONS

(cont'd next page)

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont.) EFFECTIVE DATE: 06/02/81 .9

SHIFT	POSITION	#	INCUMBENT	REMARKS
	MULTI-SPINDLE			
A	Leadman	1		1
A	Machine Operators	3		3
A	Material Handler	1		1
B	Leadman	1		1
B	Machine Operators	2		2
B	Material Handler	1		1
C	Leadman	1		1
C	Machine Operators	2		2
C	Material Handler	1		1
	CNC MACHINING			
A	Foreman	1		
A	Leadman	1		1
A	Machine Operators	11		11
				(cont'd next page)
	UNIT TOTALS		INCUMBENTS	OPEN POSITIONS

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont.) EFFECTIVE DATE: 06/02/81 .11

SHIFT	POSITION	#	INCUMBENT	REMARKS
	CAF LINE			
A	Foreman	1		1
A	Leadman	1		
A	Machine Operators	12		12
B	Foreman	1		1
B	Leadman	1		
B	Machine Operators	12		12
				(cont'd next page)
				OPEN POSITIONS

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont.) EFFECTIVE DATE: 06/02/81 .12

SHIFT	POSITION	#	INCUMBENT	REMARKS
C	Foreman	1		
C	Leadman	1		1
C	Machine Operators	12		12
				6/08/81
				- Indefinite LOA (not included in totals)

	UNIT TOTALS	42	INCUMBENTS	33	OPEN POSITIONS	9

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont.) EFFECTIVE DATE: 06/02/81 .10

SHIFT	POSITION	#	INCUMBENT	REMARKS
	CNC MACHINING (CONT'D)			
A	Utility Man	1	_____	1
B	Leadman	1		1
B	CNC Machine Operators	11		11
B	Utility Man	1		1
C	Leadman	1		1
C	CNC Machine Operators	4		4
C	Utility Man	1		1
				(cont'd next page)
	UNIT TOTALS	76	INCUMBENTS 60	OPEN POSITIONS 16

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .13

SHIFT	POSITION	#	INCUMBENT	REMARKS
	RADIOACTIVE SCRAP HANDLING			
A	Mgr. Hazardous Waste Disposal	1		
A	Secretary	1		
A	Supervisor	1		
A	Leadman	1		1
A	Scraphandlers	11		11
B	Leadman	1		1
B	Scraphandlers	3		3
				(cont'd next page)
	UNIT TOTALS		INCUMBENTS	OPEN POSITIONS

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont'd) EFFECTIVE DATE: 06/02/81 .14

SHIFT	POSITION	#	INCUMBENT	REMARKS
C	Leadman	1		1
C	Scraphandlers	3		3
	UNIT TOTALS	23	INCUMBENTS 23	OPEN POSITIONS 0

PERSONNEL LIST

FUNCTION: DEPARTMENT ____ EFFECTIVE DATE: 06/02/81 .15

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Foreman	1		
A	Machine Operators	17		17
A	Screening Technician	3		3
A	Mechanic/Machinist	1		1
				(cont'd next page)
	UNIT TOTALS		INCUMBENTS	OPEN POSITIONS

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont.) EFFECTIVE DATE: 06/02/81 .16

SHIFT	POSITION	#	INCUMBENT	REMARKS
B	Foreman	1		
B	Machine Operator	5		5
B	Screening Technician	1		1
B	Stub Welder	1		1
	UNIT TOTALS	30	INCUMBENTS 30	OPEN POSITIONS 0

(7)

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .17

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Foreman	1		
A	Leadman	5		5
B	Leadman	1		K. Hunt Transfer Pending replacement
	ELECTRICAL SERVICES			
A	Electrician	6		6
B	Electrician	1		1
A	Electrician's Helper	4		4
A	Electronics Technician	2		2
B	Electronics Technician	1		1
	MECHANICAL SERVICES			
A	Mechanics	13		13

(cont'd next page)

	UNIT TOTALS		INCUMBENTS		OPEN POSITIONS	

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont.) EFFECTIVE DATE: 06/02/81 .18

SHIFT	POSITION	#	INCUMBENT	REMARKS
B	Mechanics	3		3
A	Mechanic's Helpers	12		12
B	Mechanic's Helper	1		1
A	Welder	2		2
	CUSTODIAL SERVICES			
A	Custodians	14		14
				(cont'd next page)
	UNIT TOTALS		INCUMBENTS	OPEN POSITIONS

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont.) EFFECTIVE DATE: 06/02/81 .19

SHIFT	POSITION	#	INCUMBENT	REMARKS
B	Custodians	6		6
	GROUNDS MAINTENANCE			
A	Grounds Worker	3		3
	UNIT TOTALS	75	INCUMBENTS 70	OPEN POSITIONS 5

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .20

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	V/P Technical Director	1		
A	Sr. Metallurgist	1		
A	Program Manager, DU	1		
A	Sr. Engineer	2		
A	Project Engineer	9		
A	Metallographer	1		
A	Administrative Assistant	1		
A	Secretary	1		
A	Project Engineer	1		
A	Engineers	2		
	UNIT TOTALS	20	INCUMBENTS 20	OPEN POSITIONS 0

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .21

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	V/P Quality Assurance and Industrial Safety	1		
A	Quality Assurance Mgr.	1		
A	Secretary	1		
A	Technical Assistant	1		
A	Statistician	1		
A	Secretary	1		
A	Quality Assurance Eng.	1		
A	Supervisor of QC	1		
A	QC Engineer	1		
A	Process Auditor	2		2
A	Leadmen	2		2
A	Chief Inspectors	2		2
A	Inspectors	16		16
				(cont'd next page)
	UNIT TOTALS		INCUMBENTS	OPEN POSITIONS

PERSONNEL LIST

FUNCTION: DEPARTMENT (cont'd) EFFECTIVE DATE: 06/02/81 .22

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Inspectors (cont'd)			(previous PB)
A	Inspector (P/T)	1		1
B	Leadman	1		1
B	Inspectors	9		9
C	Inspector	2		2
	UNIT TOTALS	44	INCUMBENTS 41	OPEN POSITIONS 3

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .23

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	V/P Sales	1		
A	V/P Marketing	1		
A	Marketing Manager, Metal Powders	1		
A	Mgr. Specialty Product Sales	1		
A	Sales Engineer, Ordnance Program	1		
A	Sales Administrator, Government Contracts	1		
A	Sales Administrator, Ordnance Programs	1		
A	Sales Administrator	2		
A	Secretaries	2		
	UNIT TOTALS	11	INCUMBENTS 9	OPEN POSITIONS 2

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .24

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	President	1		
A	V/P Finance	1		
A	Senior Budget Planning Analyst	1		
A	Internal Auditor	1		
A	Special Products Coordinator	1		
A	Secretary to President	1		
A	Adm.Asst/Secretary	1		

	UNIT TOTALS	7	INCUMBENTS	7	OPEN POSITIONS	0

PERSONNEL LIST

FUNCTION: DEPARTMENT ___ EFFECTIVE DATE: 06/02/81 .25

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Controller	1		
A	Secretary to Controller	1		
A	Mgr., Accounting	1		
A	Financial Analyst	1		
A	Data Processing Supervisor	1		
A	Computer Programmer	1		
A	Cost Acct'g Supervisor	1		
A	General Ledger Accountant	1		
A	Cost Analyst	2		
A	Payroll Accountant	1		
A	Payroll Clerk	1		
A	A/P Clerk	1		
A	A/P Clerk (P/T)	1		
A	A/P Clerk	1	_____	
	UNIT TOTALS	15	INCUMBENTS 13	OPEN POSITIONS 2

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .26

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Personnel Manager	1		
A	Personnel Administrator	1		
A	Personnel Assistant	1		
A	Secretary	1		
A	Occupational Health Nurse	1		
A	Industrial Nurses (P/T)	3		
B		1		
A	Switchboard/ Receptionist	1		
A	Clerk/Typist	1		
A	Clerk Typist (P/T)	1		
A	Typist/Relief Operator	1		
	UNIT TOTALS	13	INCUMBENTS 13	OPEN POSITIONS 0

0

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE 06/02/81 .27

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Safety Engineer	1		
A	Safety Technicians	2		
B	Safety Technicians	2		2
C	Safety Technician	1		2
A	Training Officer	1		1
A	Health Physicist	1		
A	Technical Assistant	1		1
A	Health Physics Techs	6		
				6
A	Laboratory Technician	1		1
B	Health Physics Tech	1		1
C	Health Physics Techs	2		2
				(cont'd next page)
	UNIT TOTALS		INCUMBENTS	OPEN POSITIONS

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .28

SHIFT	POSITION	#	INCUMBENT	REMARKS
A	Compliance Auditor	1		
A	Compliance Engineer	1		
A	Compliance Technicians	2		2
B	Compliance Technicians	2		2
C	Compliance Technicians	2		2

	UNIT TOTALS	27	INCUMBENTS	25	OPEN POSITIONS	2

42

6

PERSONNEL LIST

FUNCTION: DEPARTMENT EFFECTIVE DATE: 06/02/81 .29

SHIFT	POSITION	#	INCUMBENT	REMARKS
	SECURITY GUARDS			
A	Full-Time Weekdays	2		
B		2		
C		2		
A	Guards-Weekends	2		
B		2		
C		2		

	UNIT TOTALS	12	INCUMBENTS	12	OPEN POSITIONS	0

ATTACHMENT #6

Office Memorandum · NUCLEAR METALS

TO : Distribution

DATE: July 20, 1981

FROM : Paul Loewenstein PL

SUBJECT: Observation in Reduction Area

is Process Auditor for the Army work covering the 774 production from Reduction through Aging. As part of her work, she spends a lot of time on the floor talking to people. She also gets a copy of the minutes of the Reduction Meeting.

made a number of pertinent comments regarding Safety aspects in the Reduction area. All but the last comment are things technicians told her:

1. Health Physics technicians are in area only at beginning and end of each shift to change the PAM filters. There is no Health Physics personnel in area while work is going on. There is a feeling that Health Physics knows the PAM readings but cannot relate them to operations.

2. The people on floor never see Frank Cornetta on floor. Technicians question if he knows operational details.

3. Technicians feel that interview with Frank Cornetta when they have reached their radiation limit is unsatisfactory. Claim that sometimes they are given only a few minutes.

4. There is a general question, how one day at the end of the quarter it is unsafe for a man to work in Reduction and the next day (new quarter) he can be safe.

5. Some feeling that Radiation Safety considerations sometimes are traded off against plant safety (Working at high places, sharp corners, etc.)

6. Sometimes there is no coverage by Health Physics and no PAM's. Example, Night Shift, 19-20 July (Sunday to Monday) started at 9:00 pm. Health Physics technician came in at 12:30 pm. Therefore 3 hours were worked without PAM's (12:00 pm is start of regular "C" Shift, these 3 hours were overtime).

7. Some people were taken out of Reduction area when their cumulative readings reached set limit and put on CAF line where they had to wear respirators. This seems to make no sense. (I believe this has been changed recently and is not normal practice.)

8. Carrie observed that derby is taken out of pit and placed on floor for some cleaning. This has resulted in smoldering fires on floor with no ventilation.

I feel that observations are valid and I appreciate that she brought them to the Reduction Group's attention. Most of them have been discussed in Reduction Meetings. We will discuss them again at next meeting (Wednesday, July 22).

Distribtuion:

MEMORANDUM Nuclear Met

Paul Loewenstein

date: July 21, 1981

Further to Observation

Re: Your memo, 7/20/81

When my comments are discussed, I would appreciate your making one additional point on my behalf. I brought this up during our conversation, perhaps not with enough emphasis, and I do not think it is adequately conveyed by your memo.

Each of the first seven comments has some validity in point of actual fact (possible exception for #4, which I think is the result of limited understanding). Corrective actions taken as regards any of these questions will be of value in dealing with what is my perception of the central issue here, ie. the credibility of the Health Physics Department and, by association, the Company.

Feelings expressed in comments such as these, contribute to what seems to be a general, rather cynical attitude towards the company's concern for the lives and safety of people working in production areas on a daily basis. It is really very nice that you are all aware and responsive to the safety of workers. But the full benefit of your collective actions will not be realized unless the workers are informed and understanding of them.

What people believe is very often more important than what is true.

P.S. In reference to point #8, I believe I mentioned that it would be very difficult to sufficiently clean slag from the surface of the finished derby inside the (ventilated) knockout pit.

Reduction workers cynical about health physics statistics.

1. HP technicians come into area to pass out PAMS and put up filters in stationary air samplers, then again to collect them. They do not spend more than the few minutes necessary to perform these responsibilities actually in the area. They do not observe operations.

2. One or two Reduction workers I have talked with remember seeing Frank C in the area once.

3. Workers are familiar with some radiation terminology - They have heard words like alpha, beta, gamma, exposure, cumulative readings, but they have a poor understanding of what it all means.

4. One worker who was pulled from Reduction last quarter told me his personal interview with Frank lasted 2½ minutes and that his foreman had told him more than Frank did.

5. They wonder how reliable figures (on which decisions are made concerning their personal health & safety) can be. HP coverage is often sporadic - especially at night. The ~~extended~~ length of time they are wearing PAMS is often much greater than the hours they actually work, and they often work on several different jobs during a shift. Figures may not be representative of average overall exposure.

6. They feel there is often a tradeoff between Radiation Safety and Regular Industrial Safety.
(elevated work stations, sharp edges where holes have been cut in work platforms)

7. They thought it was pretty funny when guys were moved from Reduction to EAF line only to find out that was a new "hot" area.

- Breaking slag off debris on the floor I have seen this cause smoldering that continues for quite a while.

ATTACHMENT #7

Office Memorandum · NUCLEAR METALS

TO : Distribution
FROM : P. Loewenstein

DATE: 1981

Present:

SUBJECT: Meeting - July 15, 1981

Since this was our first meeting of the new quarter, we decided to discuss only health & safety questions in hopes of avoiding losing technicians in next quarter due to high cumulative PAM readings. At the end of the last quarter, we lost 9 people from Reduction out of 28, essentially depleting the entire "C" shift.

1) Dick reported some very recent PAM readings for last Monday. These occurred mainly on the "C" shift. Al reported that there was no or little ventilation at the blender. There were also some high readings in the "A" shift. For once we had a clear explanation for the reasons for high readings.

In the future, there will be no work at any station where the ventilation is suspect as insufficient. We emphasized that Health & Safety comes before production. In the long run, production will suffer more if work is carried out under unsatisfactory conditions and technicians have to be removed from productive work.

2) Computer program for PAM readings.
The incident reported above shows the importance of quick feedback of PAM readings. The computer program has now been in place for 2 months, but not used because Frank cannot arrange for help in putting data into computer. PL has talked to ARG about this before vacations. I will again try to take some further action to obtain computer data. We simply have to have overnight output on PAM readings as well as continuous cumulative data for each man on the floor if we want to avoid interruption in production due to lack of manpower.

3) Dick is to get PAM data generated by hand calculators or computer as soon as it is generated and not wait for Frank's formal approval. If corrections are required, Frank can recall the data sheets.

4) We discussed at length various questions on urine samples. Reason for taking these after weekend was explained. We discussed difference between uranium oxide and green salt. The foremen are to explain importance of these readings to the men. It is most encouraging that there have been only two instances of high readings of urine samples in Reduction, both of which were explained by circumstances not connected with the Reduction work.

Foremen will see to it that all men give a sample on Monday. Foremen will give list of technicians to Health & Safety and Health Safety engineer will check off samples and tell Foremen who is missing.

It was decided that samples will be given by technicians who have worked on Saturday and/or Sunday, but not by technicians who are absent on Monday.

5) Frank handed out four pieces of literature relative to radiation problems and equipment.

6) Question to each and all: What can we do to improve situation?
Frank: Pay more attention to workers with high PAM readings. Foremen should watch high reading men. New people seem to be a high risk. Ed pointed out that there is a training charge number, and new men can go through a training period where they may not be quite as productive.

Dick: More attention to details are required. Some of the best and most eager workers have highest readings due to their eagerness. Any special situations having possible safety implications, such as a green salt spill should be reported to the foreman before corrective action is taken (If possible and practical) - Foremen should enforce this rule.

Ed: Blender improvements still going on. Ed suggests that Dick Kruszkowski make some video tapes of the correct way of doing some of the critical operations. This may be more effective than reading the S.O.P. manual. A new hood for cover cleaning is in works. The modifications of blender bucket conveyor are underway. Spring loaded thermocouples are still in shop.

Use of fresh air inlet has been discontinued. (Since meeting, Kevin Carmody has reported corrections made & fresh air inlet to be used again on trial basis.)

Al: There is a need for better coverage for repairs of equipment for "B" & "C" shifts.

Phil: Question about putting hot vessels outside of building. Typically, yesterday there were 16 vessels cooling inside at one time. Ed and HFS are working on this. It will require a special ventilated shed. This is unlikely to be approved and built in near future.

Ed: Ed discussed problems caused by lack of space. Ed feels that foremen's job is to supervise. We all know how tempting it is to "pitch" in and do some of the work. But at this time, Reduction is fully staffed, and foremen should see to it that we remain fully staffed by controling the system and paying attention to details.

Paul: Need for cumulative radiation readings for each man so that we can protect the men and the job.

This was a good meeting at the beginning of a new quarter. Next meeting will be on Wednesday, July 22.

Distribution:

ATTACHMENT # 8

August 18, 1981

Dear Will,

We are a group of people who, two months ago, stood on opposite sides of the union question. All of us were active and vocal in stating our divergent opinions on that issue. All of us have talked extensively with other workers; we have listened to their complaints and we have heard their suggestions. Over the past few weeks we have been able to reach substantial agreement on the identification of certain problems and proposals for their possible solution, a summary of which is contained in the enclosed "Suggested Agenda for Discussion".

We are not, except by self-appointment, representative of NMI's hourly production workers; we cannot speak for them. We do not pretend to have covered all the concerns of all workers in the enclosed agenda. Indeed, we have talked about several other matters which were considered to be too specific or otherwise inappropriate for a group of this nature. We have no wish to make prescriptions or demands for action by NMI's management and do not feel that there is any need to do so.

We do hope for an opportunity to talk about our requests and recommendations with you and other members of the management staff. It is our sincere hope that some of our ideas will be of value to the Company and that we may, through open and honest discussion, contribute to its continued success.

Sincerely,

(51-57)

of the Employee Advocacy Committee.

2. In all instances the request for advice or assistance from the Employee Advocacy Committee should be at the discretion of the individual employee.

3. The establishment of such a Committee ought not to be construed as negating the validity or necessity of alternative or pre-existing avenues for communication between workers and management.

B. This group recommends that the Employee Advocacy Committee have the additional function of making recommendations to management regarding changes and implementation of the Company's personnel policies.

C. We request that the Company cooperate in the conduct of elections for representatives of hourly production workers on the Employee Advocacy Committee.

1. Such a Committee should include representatives from all shifts with designated slots for membership in approximate proportion to the number of employees on each shift.

2. Representatives elected to membership in such a Committee should serve for a specified term, the duration of which we recommend to be one year.

3. The appearance of an employee's name on the ballot for election to the Employee Advocacy Committee should be by nomination or by his/her personal request.

4. It is suggested that ballots for election to such a Committee be prepared, distributed, collected and counted by the office of the Company President with the assistance of volunteers from the production workforce.

D. In recognition of the benefits the efforts of the Employee Advocacy Committee can provide to hourly production workers, management personnel and the Company, it is further requested that the Company establish provisions for compensation to members of such a Committee for work related to its activities.

III. Written Performance Evaluations

A. It is recommended by this group that all employees have access to a written description of general responsibilities and requirements related to his/her job.

B. It is further recommended that formal written performance evaluations related to fulfillment of such responsibilities and requirements and adherence to general rules of employee conduct be prepared and presented to each employee on a periodic basis.

1. An employee should have an opportunity to discuss the evaluation with the supervisor who prepared it.

2. Although such evaluations may be used in dertermination of salary review, they ought to occur separately from and more frequently than the 6-month and annual reviews.

IV. Upgrade of Wage Scale for Hourly Workers

A. This group feels that the present wage scale is an area of concern common to the majority of hourly workers and recommends that the Company endeavor to provide in the near future some increase in base wages paid to all hourly workers.

B. It is our consensus opinion that an across-the-board pay hike will be of only temporary value in improving the average worker's attitude toward the Company.

C. We find ourselves largely uninformed as to specific budgetary constraints on the Company's ability to increase wages.

D. In light of B and C above, we wish to avoid making a request or proposal for a standard or universal increase in hourly wage rates which specifies a particular dollar amount (or amounts).

E. We further wish to make clear that the ad-hoc nature of this group renders inappropriate any action on our part which might be construed as an acceptance or rejection of an offer, whether real or hypothetical, made by the Company concerning a standard or universal increase in hourly wage rates which specifies a particular dollar amount (or amounts).

V. Modification of the Salary Review System

A. It is the opinion of this group that substantial modification of the Company's salary review system is both essential and appropriate and we recommend that the Company take steps to make such modifications.

1. We feel that the 6-month and annual reviews ought to take into account several factors including, but not limited to the following:

a. any increase in the "cost of living",

b. any increase in the average rate paid to new employees,

c. any change in work load or responsibilities of the individual employee,

d. the individual employee's performance relative to particular requirements or expectations.

B. We feel that the portion of an employee's review related to a and b above can and should be standardized.

C. We feel that the portion of an employee's review related to c and d above can and should remain flexible.

D. This group further recommends that each employee be informed of the amount of increase in his/her hourly wage rate and the manner in which it has been determined prior to the effective date of that increase.

1. A mechanism by which an employee may appeal his/her review ought to be established and made available on a company-wide basis.

E. The members of this group feel that modifications of the salary review system such as those here specified can provide lasting benefits to all employees and to the Company.

1. Standardizing certain portions of wage increases would act to reduce perceived inequities in the Company's policies related to compensation for work performed.

2. Keeping certain portions of wage increases flexible should act to stimulate improved job performance.

3. A stated opportunity for employee input to the determination of his/her salary review may act to reduce the extent to which some workers feel vicitimized by supervisors or by the Company.

4. Any increases in the cost to the Company for labor which result from modifications of the salary review system will occur gradually, permitting management to anticipate such increases and take into account their effects on long range planning.

VI. Benefits Program

A. The group feels that employees are generally pleased and satisfied with the Company's benefits program to the extent that they are aware of it and makes no immediate recommendations in this area, except as stated in I.A. above.

VII. Safety

A. The members of this group recognize and appreciate the Company's current attention to the issues surrounding industrial and radiation safety and do not feel it appropriate at this time to make specific criticisms in this area.

B. The group would, however, like to urge the Company to consider the following points:

1. Safety ought to be a major concern and responsibility of all employees at all levels and in all departments.

2. Cooperative dialogue and action on the part of personnel at management levels in all departments should minimize tradeoffs between production and safety.

3. Mechanisms for constant solicitation of safety concerns and continuous education of all employees to safety precautions and procedures should minimize the need for any section of the Safety Department to function as a policing agency and increase their availability to tend to other responsibilities.

VIII. Summary Recommendations

A. It is the opinion of this group that mutually acceptable decisions regarding an employee's relationship with the Company ought to be made at the lowest appropriate level and in compliance with established policies.

B. The members of this group recognize the essential and continuing validity of management's "open-door policy" but feel that the expansion and subsequent segmentation of the Company necessitates the immediate establishment of additional and alternative avenues for communication.

C. The group feels that closer attention by management to the relationship between work performed and compensation to individual employees can improve the attitude of a worker toward his employer and provide resulting benefits to the Company.

D. This group feels that the nature of products and processes at NMI requires that management make safety a primary consideration in all decisions and activities and in ways which are understandable and evident to all employees.

ATTACHMENT # 9

MEMO SUBJECT: PERSONNEL POLICIES AND PROCEDURES MANUAL

FROM: Dan Baczkowski

DATE: August 6, 1982

DISTRIBUTION

Employee Relations Committee

Manuals Assigned to:

OFFICE MEMORANDUM

Nuclear Metals Inc.

to: Distribution

date: August 6, 1982

from: Dan Baczkowski

subject: PERSONNEL POLICIES AND PROCEDURES MANUAL

I am distributing with this memo your copy of the Personnel Policies and Procedures Manual. This manual contains all of the policy statements that have been documented over the past year through the efforts of the Employee Relations Committee. I would like to thank all of the people involved in this effort, the Committee as well as many other employees who have taken the time to make useful comments that have helped to develop the contents of this volume.

I also want to direct your attention to the introductory statement by our Company President, Will Tuffin, which outlines the general philosophies underlying our personnel policies.

Although we have reached the point where we can publish this collection of policies in the form of a manual, a document of this type is never really complete. It is intended that we will continue to add policy statements as new needs are recognized and revise the published policies as new interpretations occur. This is meant to be a live document to communicate to all company employees exactly what the company's attitudes are on all matters of direct concern to employees.

We urge you to share this manual with your Leadmen and departmental employees. This volume is assigned to you for your personal care and control but it is expected that it will be kept in a location that will be accessible for reference by all departmental employees. Additional loan copies of the manual are available in the Personnel Department if anyone feels the need to have a copy to study at a more leisurely pace.

Thanks again to all of the company employees who contributed in the development of this policy manual. Please continue to share your thoughts on new policy areas that are yet to be addressed for inclusion in this manual.

D. Baczkowski

DB/js

Attachment

INTRODUCTORY STATEMENT BY COMPANY PRESIDENT

Following is NMI's Personnel Manual. These policies impact you substantially so I urge that you read the Manual thoughtfully. Reading a section at a time may be preferable to trying to absorb all sections in one reading. Knowing what is covered in various policy statements will be helpful to you when you refer to the Manual in the future. Particularly if you are a Manager or a Supervisor I urge that you try to grasp an understanding of all sections. Where you need interpretation seek it from Personnel now. It will help you deal with employee concerns and questions more promptly in the future. I urge all employees to seek answers to any question they have from their Supervisor. Your understanding of all policies will permit smoother implementation.

In general, our policies reflect NMI's commitment to be fair, economically competitive and humane in all its dealings with its employees. NMI has a genuine concern for the employee and his or her family. We trust that you will benefit from your employment at NMI, from these policies, and from our concern for you. Kindly contribute to the implementation of all policies and to NMI's success. It will be beneficial to you and to all employees.

Wilson B. Tufft

PERSONNEL POLICY MANUAL

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7.9 Termination of Employment

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7.11 Personal Property on Company Premises

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* Topics not yet finalized as Policy Statements.

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Subject	Meeting Date(s)	Date Policy Effective
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Subject	Meeting Date(s)	Date Policy Effective
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Effective February 1, 1982

Policy Statement

Subject: Smoking Rules

Policy: Smoking is allowed on company premises in areas that are relatively free from airborne materials that might be harmful to the smoker. Smoking is not permitted in areas where there are radioactive, toxic, or hazardous materials, or where flammable substances are present or stored in quantities that constitute a safety hazard to smokers. Smoking or possession of illegal substances is not permitted.

Interpretation and Explanation:

- Because of the presence of airborne materials, especially potentially toxic heavy metal particles in our manufaturing environment, it is necessary to prohibit smoking in manufacturing areas where it could result in undesirable intake of harmful materials.

- No smoking areas will be designated by appropriate signs.

- Foremen and Supervisors are responsible for enforcement of No Smoking rules within the guidelines of company policy on discipline.

- The difficulties imposed on habitual smokers by this policy is recognized. However, we also recognize the proven harmful effects of excessive smoking on an individual and encourage all of our employees to minimize their smoking habits.

- Extra "cigarette breaks" will be at the discretion of the Foreman or Supervisor. It is important that extra breaks be held to reasonable length, must not interfere with production, and all department employees are treated equitably.

- The company will periodically sponsor No Smoking clinics and other measures to assist smokers in reducing or eliminating their habit.

Effective July 23, 1982

Policy Statement

Subject: Safety

Policy: Company Management is commited to maintaining safety conditions throughout the company's facilities that equal or exceed standards promulgated by various federal, state and local governmental regulatory authorities. Beyond the legal requirements we recognize a strong moral and ethical obligation to assure the safest possible working conditions to all company employees. Because of the hazardous nature of many of our industrial processes and the materials from which we make our products, we will follow the concept of limiting risks to a level that is "as low as reasonably attainable" (ALARA).

Interpretation and Explanation:

- At NMI Safety is everyone's business. The Vice President, Health Safety has primary responsibility for establishing Safety Programs and company rules for health and safety standards. Through periodic meetings, letters, memorandum, bulletins, and manuals which are maintained by the Health Safety and Radiation Safety functions the rules and procedures for safe operations are made available to all company employees.

- All company employees are required to rigorously follow health and safety regulations established by company management. Wilfull failure to do so will result in exercise of formal discipline procedures.

- Each Supervisor must assume specific responsibility for the safety of the operations being carried out under his direction.

- It is the Safety Director's responsibility to determine if any operation involves unsafe practices or conditions, and to shut down a hazardous operation if necessary to protect company employees.

Effective July 23, 1982

Policy Statement

Subject: Eating/Drinking In Plant

Policy: Consumption of food or beverages in company facilities is permitted only in the cafeteria or designated areas that are safe for food consumption as determined by the Health Safety Department.

Interpretation and Explanation:

- Because of the presence of air borne materials and potentially toxic heavy metal particles in our manufacturing environment as well as many other harmful substances, it is necessary to prohibit eating and drinking in most Production areas of the plant.

- The Health Safety staff has the responsibility for evaluating specific areas that might be used for drinking fountains or cold drink dispensers in various areas of the plant. The Health Safety Department is also responsible for setting rules for the use of picnic areas outside the plant.

Effective: November 15, 1983
Revised: March 11, 1991

POLICY STATEMENT

Subject: Personal Property on Company Premises

Policy: Employees are allowed to bring personal property onto Company premises to assist in the performance of their job requirements and to provide for their greater comfort or convenience as they perform their work. Personal property brought into Company buildings must be registered with the security guards on entry. Use of personal equipment is subject to the approval of the department Supervisor, Health/Safety and Security functions.

Employees should be aware that the Company can assume no responsibility for any risk of damage or loss of employees' personal property that is not specifically agreed to by an Officer of the Company.

Because of the possibility of radioactive contamination of personal property employees must be aware that an inability to decontaminate the property might result in its disposal or permanent retention in controlled environment areas. Any personal property leaving the building must be surveyed for radioactive contamination. Any efforts or expense involved in decontamination are the responsibility of the employee.

Interpretation and Explanation:

- The Company has long recognized the benefits of allowing employees to use personal items such as Machinists' tools and tool boxes to assist them in performing their jobs. The user of such items, however, must recognize that both industrial and radiation health safety measures must be carefully observed.

- Company management has agreed that Machinists' tools are an exception to the general policy as stated above. Because there is considerable advantage to the Company and all employees in Machinists using their own tools on Company premises, it is agreed that the Company will replace Machinists' tools or provide

Subject: Personal Property on Company Premises

Interpretation and Explanation - - Continued

payment for their reasonable cost if they are damaged beyond repair through normal use or contamination.

- Employees using personal tools on Company work must make them available for calibration tests consistent with regular Company procedures.

- It is the intent of this policy to provide reasonable and effective control over employee claims for loss of personal property. Exceptions to the provisions of the policy may therefore be allowed for unusual or extenuating circumstances with the approval of a Company vice president.

- Health Safety personnel are responsible for monitoring and establishing measures for safety standards and compliance with allowable contamination levels and instructing personnel on methods for decontaminating personal equipment that must leave the building. The Security function is responsible for the effective administration of the measures established by Health Safety. Individual Supervisors also have a shared responsibility for effective control of the use of personal equipment in areas under their control.

- The Company assumes no responsiblility for loss or damage to employee personal property. This includes radios brought into the plant, personal automobiles parked in Company parking lots or any other personal property that is present on Company premises. All such property is the exclusive responsibility of the individual employee.

- The Company also reserves its rights to inspect items being carried in or out of the building by employees and visitors. This would include inspection of packages, containers, briefcases, etc., that anyone might be carrying. It is important that all employees recognize that duly authorized Company representatives may require that such items be opened or surrendered for inspection before they are allowed to enter or leave the premises. The Plant Security Force has the main responsibility in administering this policy.