October 26, 2004

MS 16
P-5/Q-5

Mr. John Kinneman
Chief, Nuclear Materials Safety Branch 2
US Nuclear Regulatory Commission-Region 1
475 Allendale Road
King of Prussia, Pa. 19406-1415

Reference: Docket Nos. 03005980 / 03005982
Control Nos. 134920 / 134921
37-00030-02 / 37-00030-08

Dear Mr. Kinneman:

The following is the additional information that you requested in your letter of August 18, 2004.

ITEM 1. 10CFR30.32(i)(1) requires a licensee to prepare a Radiological Contingency Plan only if radio-nuclides exist in excess of the quantities listed in paragraph 30.72, Schedule C. According to the waste characterization data produced for Safety Light Corporation (SLC) by Solutient Technologies. SLC has [ ] In addition, there is a quantity of [ ] which is on metal foils or within sealed sources. Due to its' makeup, the total activity for [ ] has not been precisely determined, however, based on previous processing records the activity is most likely [ ] Therefore, the values for [ ] are all below the quantities specified in Section 30.72, Schedule C. Although a value for [ ] is not listed in Schedule C, the sum of the ratios for the multiple radionuclides is less than one.

It should be noted that all the material listed above is in concrete, moist soil, sealed devices, or affixed to metal foils. All of the material is contained within steel [ ] The material is not readily dispersible even if a number of containers were to be destroyed. A discussion with our Health Physics Consultant indicated that given the way this material is packaged and with its physical/chemical properties, the material would be below the release limits listed in 10CFR30.72, Schedule C and could not cause a radiation dose as high as one (1) rem to any person offsite. Based on this information we conclude that a contingency plan is not needed for this material.

ITEM 2. The last Contingency Plan Exercise was September 30, 2002. SLC based the drill on Accident Scenario 2.8 of our Radiological Contingency Plan, Fire in Solid Waste

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Building. We discovered through this exercise that gas was turned on to a heater inside the Solid Waste Building that wasn't being used. SLC made the decision to cut off the gas outside the solid waste building to prevent this from being a possible source of fire or a source that, if ruptured during a fire, would be a supply source to aid the fire. All the contact numbers were verified that are listed in our Plan. The short duration of such an event and its location precluded the need for evacuation. Everyone with responsibilities listed in the Contingency Plan performed their duties flawlessly. It is clear that the exercise reinforced our individual and collective responsibilities and, more importantly, kept them fresh in the event that something does happen at SLC.

In the two years previously, SLC used the actual house fire that occurred on the site as our drill and evaluated everything that happened that day. The actual experience of having that fire demonstrated that everything worked smooth under those conditions and the fire was out in 45 minutes after it was first noticed. SLC's next drill will be done before the end of the year.

ITEM 3.a & 3.b. See Table One. The large curie amounts are attributable to our foil and target operations and consist mostly of scrap foils while the large volumes are attributable to paper waste including paper towels for hand drying in the active area, step pads, etc. The active area is used primarily for the preparation of foils and targets and for cleanup of contaminated devices and device parts.

ITEM 3c. A portion of the tritium waste that is onsite dates back to before 1979 and before I was associated with the company. Health Physics kept a log for all deposits and withdrawals from [ ]. At present it is impracticable to do a physical inventory in the [ ] of all the material that is stored there. Some waste was put into 55 gallon drums and compressed ready for shipment under the regulations at that time. All that waste will have to be unpacked to do a physical inventory. In keeping with ALARA, SLC doesn't feel that it is something that should be done until we are ready to ship that waste.

[

]

ITEM 3d. Chase Environmental quoted a price of [ ] to dispose of the above material. Their quote is predicated on their ability to obtain the required allotment of space from Barnwell. If the required space is unavailable at Barnwell, we know of no other disposal facility that could accept this of waste.

Within this total quantity, there is a large volume of waste that could go to Envirocare, but it only amounts to a little over [ ] The quoted estimate to dispose of this limited quantity is [ ].

While the availability of disposal space is potentially one hurdle that must be overcome, the funding of this disposal must first be addressed. Our 08 licensed activities generate income while the 02 license does not. Nevertheless, as you are aware, SLC has been required to divert the cash generated from the 08 license to an escrow account being used toward the cleanup of the waste generated by the 02 license. If SLC could have used that money for the 08 license that generated it, SLC would have had enough money to ship the tritium waste to a proper disposal facility.

ITEM 3e. When commercial exit signs are returned to SLC, we dismantle them to remove the tritium light sources. These light sources are then packed and returned to our light source supplier in Canada, Shield Source Inc. and handled under their license. Because aircraft signs are more difficult and time consuming to dismantle, they are returned intact.

ITEM 3f. All waste generated by our 08 licensed activities since our last renewal has now been shipped off-site.

Long before our last license renewal, we evaluated our operating practices with the goal of reducing waste generation. The most significant impact was derived from our decision to discontinue taking back foil waste from licensees. As you can see from 3c above, the large curie amount of waste, representing the smaller volume, is all foil and target waste. Table One shows our volume of waste growing a little larger if you look at the volume of waste shipped after the first two years compared to the volume of waste shipped the next two years. This is basically due to paper waste being generated in the gas fill active area due in part to the handling of more returned signs and in part to an increase in filling government defense contractors' needs with foils that can't be obtained any where else.

ITEM 4. The waste from the silos was placed as far away from the onsite employees as possible given the restrictions of the site. Our calculable dose to those we have determined to be most impacted by the stored waste is right at the 100 mrem dose rate that requires training. The three personnel determined to be near this threshold have been trained. To further aid in our assessment, we installed a program using film badges for these same three people. The first month's readings have been evaluated and only one of the three had a one mrem dose, the other two had no dose. As we obtain some history on these people, we will be better able to make assessments to the exposure of the other individuals. ITEM 6 will discuss proposed changes to the way the waste is situated.

ITEM 5. Our dose rate calculation is based upon the most likely individual uptake offsite. Table Two lists the amount of curies released through our stack and the dose

calculated in mrems that the most likely individual would receive. Also on the chart is the amount of curies discharged to the Susquehanna River. Due to the very low concentrations and the vast dilution of the Susquehanna, we do not do dose calculations for this effluent stream.

ITEM 6a. A clearly defined map showing restricted areas is included with this letter.

ITEM 6b. As this moment, Safety Light Corporation has only two radiation areas on site that apply to our 02 license.

Stored in both of these areas is the waste removed from the silos. SLC has been authorized to proceed with a proposal that would eliminate the radiation area southeast of the Processing Building. A timeline has not yet been determined.

SLC has numerous other locations around the site that are marked "Caution Radioactive Material". Most, if not all, of those signs have been up before anyone who is currently working here was hired, with the exception of one part time employee and the current production manager. SLC has no way of determining whether any of these areas are above the limits where posting is required. We do know there is contamination in all these areas. Our training program for the workers on site warns them that there are higher radiation levels in those locations and are advised not to frequent or spend a lot of time in those areas.

The radiation levels on this site are minimal with the exception of the silo waste. Although these levels are extremely low, SLC has always erred on the side of rational conservatism when it came to protecting people from even low levels of radiation.

ITEM 6c. SLC has received approval to ship the silo waste that can be shipped. This shipment will then allow us to move the remainder of the material stored outside away from our workers in the processing building and into the pole building where it will be protected from exposure to the weather. The proposal we have from the contractor will have them retain the integrity of the 100 mrem reading presently at the shipping/receiving dock location.

The fenced boundaries are inspected when unusual events occur such as windstorms or severe thunderstorms. They are also inspected during bore surveys. Without going into details because of security concerns, it is very unlikely that a breach in the fence along the river would result in any significant theft of material.

ITEM 7b.

Employees who have had radiation training escort all visitors on the site. Visitors to the site are normally salespeople who have limited access to the office area or the processing building or utility meter readers. No visitors to the site have any need to be anywhere else on the site. We don't consider NRC, EPA or PADEP officials to be visitors as far as training is concerned, however, they are required to sign in and in most cases are accompanied by either the RSO or Assistant RSO. Someone who has had radiation training concerning the Bloomsburg site always accompanies PADEP employees that work in the hazmat branch of PADEP.

Contractors that are here to do work on the site such as restoring the fence, working on the air conditioning, doing electrical work, testing the sprinkler system, testing the security system etc. are given verbal radiation orientation concerning the Bloomsburg site at the discretion of the RSO depending upon length of time to be spent doing their function, areas where work is being done and frequency of return visits. All these contractors are required to sign in and out. These contractors are told of the hazards on the site and are told not to go into any areas that were not previously approved. Knowing the radiation readings of the areas that they will be in and making determinations of the dose they would likely receive, if any, controls exposure.

ITEM 7c. The waste building that houses the tritium waste is kept locked at all times and is only entered by Health Physics. SLC keeps a running inventory of receipts and shipments by curie amounts. A separate running inventory by number of tubes is kept on inventory cards. At the end of every month we check inventory cards against running inventory numbers to check if there are any gross errors between the two. Outside of waste, ninety nine percent of the tritium that we process is in the processing building which is locked and under security except when we are working. The aircraft signs that have tritium in them that are traveling between the processing building,

machine shop and application departments are followed by work orders which list the quantities of signs that should be following that work order. If a sign is misplaced or stolen there wouldn't be enough signs being returned to sign assembly to complete the order or enough signs to conduct the next operation before returning to sign assembly. This shortage, if it were observed anywhere in the process, would be immediately reported to the supervisor who would conduct an investigation into why there was a shortage. If a reason could not be determined, they would then contact the management.

We are doing a weekly inspection of the silo waste both[ ]We look for leaks and to see if the waste has been disturbed. At a meeting held at SLC, which included the NRC, EPA, an EPA Contractor and PADEP radiation branch on October 15, 2004, a plan was put in process that would eliminate[ ] At that time EPA will take over control of the silo waste in the pole building and will have

ITEM 7d. Norman Fritz, the Radiation Safety Officer of Safety Light Corporation,

ITEM 8. A radiation survey of the perimeter fence is conducted annually. If changing conditions warrant then surveys are made at that time.

ITEM 9. The staging locations for inbound and outbound radioactive material shipments are located in the restricted area. There are no access controls for carriers. Shipments received in the shipping/receiving area are inspected by Health Physics according to SLC's Health and Safety Plan and then taken to the processing building for further dissemination. Outgoing shipments are not placed on the dock but are kept by the receiving/shipping office for pickup inside the main building. Ninety eight per cent of SLC's shipments go via FEDX or UPS. All shipments for the two carriers use computer generated labels that are scanned at pickup and checked against the printed shipment list from the computer. If that list didn't match we would know immediately that something was missing. The other two percent go via trucks. These shipments are placed on skids and shrink wrapped when they are brought to the shipping area via the shipping/receiving employee.

ITEM 10. The individuals responsible for maintaining control of the radioactive waste under license 37-00030-02 are the Radiation Safety Officer and the Health Physics Technician. We are recording their doses with the use of film badges. In Item 4 above,

we noted that the individuals that we identified as being potentially close to the 100 mrem dose already have the necessary instruction. In the very near future we anticipate that the EPA will be responsible for the silo waste. See item 7C above. SLC will still monitor the situation as far as SLC's employees are concerned.

ITEM 11a. Safety Light Corporation surveys several areas on a scheduled basis for Alpha, Beta, Gamma and for Alpha using a proportional counter. The areas are: outside former screening room, the pole building, selected main building areas, selected etching building areas, the metal silo and the pipe shop. As soon as the silo waste in the pole building becomes the responsibility of the EPA, SLC will no longer survey the inside of the pole building. SLC also surveys equipment and personnel that may be subjected to building or ground disturbances.

The 02-license material on site is static or has been, to my knowledge, since 1979 with the exception of the silo waste. Most areas are locked and not accessible to employees or the public. Items that are found to have any removable contamination on them are labeled, cordoned off if we feel it is necessary or moved to a locked area. The 02 materials in the pole building are locked and not accessible to unauthorized individuals. The 02 materials in the yard are marked off with barrier rope. Employees are instructed as to the contents and limits at the rope barrier. Employees other than the Health Physics Technician and the employee taking care of the grass are the only employees that have a need to be at the rope barrier. This area is out in the open and is easily monitored throughout the day. Again as spelled out in ITEM 7c, the yard waste is going to be moved to the pole building in the near future and will be under EPA control.

ITEM 11b. The management of Safety Light Corporation, including the RSO, Health Physics Technician and the Production Manager, know the site well and know what the radiation levels are at various parts of the site. With the exception of the silo waste, the rest of the areas are static in so much that we don't handle those radio-nuclides that are listed in the 02 license. There is nowhere on site with the exception [redacted] (Again, refer to item 7c for changing conditions in the near future.) If emergency personnel such as firemen or police have to enter our site to fight a fire or pursue vandals, as best we are able, we will advise them of the special circumstances of our site. After they have concluded their required on-site activities, we will assess their potential dose based upon what areas they were in and what estimated time they were in those areas. We would also do a complete contamination survey on their person, clothes and equipment and would not let known contamination be carried offsite.

ITEM 12. At the time of our last license renewal there was a great deal of pressure on us to increase the level of our escrow funding. In the end, we agreed to a graduated funding increase that represented a 64% increase over the previous 5 year license period which culminated in an 80% increase in the monthly commitment for the period of 2003-2004 as compared to the monthly commitment of the previous license period ($9,000 per month vs. $5,000 per month). As we wrote in our letter of August 3, 1999:"it is with some trepidation that we make this proposal, as we will be dependant on a

stable growing economy in which we can continue to grow our business to fund this aggressive escrow increase." Unfortunately, the economy faltered and we fell behind in our funding obligation. Despite the fact that this funding shortfall will soon be rectified, we do not want to find ourselves in a similar position again where we are unable to fulfill the obligations of our License.

Although our current business is strong and growing, we have unable to forecast, with any degree of certainty, the domestic and global economic conditions that impact our projections and profits. However, based on our current book of business and what we anticipate will be available to us during the next five years, we believe that we will be able to meet the proposed monthly contribution of $5,000.

ITEM 13. As expressed in our License Renewal Application, it is our desire to continue our self-luminous sign manufacturing and distribution activities. Based on our conversations to date with various members and divisions within the EPA, we are confidant that we can work cooperatively with the EPA and/or their designated contractors in the event that they decide to initiate remediation activities to insure that our operations continue while making sure that our workers are protected.

ITEM 14. We are unsure how to answer this question and don't feel qualified to comment on the appropriateness of changing the 02 License to a Procession-Only License. If this proposed change only requires that we send in a renewal application every two years then this does not appear to be an onerous requirement. However, we are uncertain as to how this license change would impact our ability to perform additional remediation activities as funds become available from our escrow fund. Additionally, we do not know what impact our potential inclusion onto the National Priorities List would have on this issue.

Very Truly Yours,

Larry Harmon,
Plant Manager

In Mr. Harmon's absence this letter is signed by William E. Lynch Jr. – Vice President

TABLE ONE

DATE	WASTE CURIES*	TOTAL CURIES ACCUMULATED	CURIES SHIPPED	VOLUME SHIPPED CUBIC FT.	CURIES ENDING
1/1/2000					
1/1/2000–12/12/2000					
12/13/2000-1/28/2001					
11/29/2001-12/16/2002					
12/17/2002-11/19/2003					
8/16/2004					
11/20/2003-10/18/2004					

* Curie values are not decayed and are rounded off.

** were found to be reusable foils and were sold to one of SLC's customers. See our letter to Donna Janda NRC dated August 19,2004.

*** Volume to be determined at time of shipment.

If waste was shipped in any given year, the last date in the date column is the date the waste was shipped.

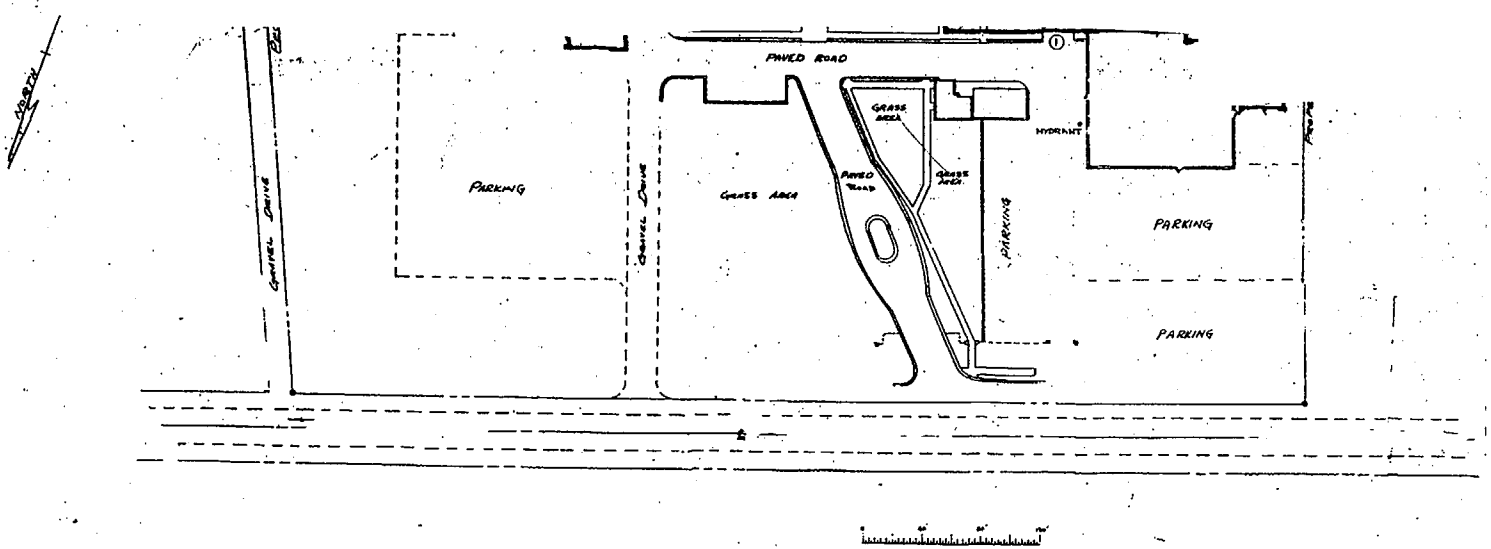
ALL WASTE OF SIGNIFICANCE ACCUMULATED SINCE THE DATE OF OUR LAST LICENSE RENEWAL HAS BEEN DISPOSED OF.

TABLE TWO – RELEASES TO THE ENVIRONMENT

YEAR	H3 CURIES RELEASED VIA STACK	MREM DOSE TO MOST LIKELY RECIPIENT	H3 CURIES RELEASED VIA TANK DISCHARGE INTO RIVER
2000	15.9	0.13	0.019
2001	4.9	0.05	0.022
2002	4.8	0.06	0.047
2003	4.3	0.01	0.091
2004*	-----	-----	-----

* 2004 is not yet completed. As of 8/25/04, curies out stack is 1.65. As of 7/28/04, curies released via tank discharge is 0.036.

"Withhold Site Layout"



⊠ Hose House and Hydrant

DWN BY	DKW
CKD BY	S.A.L.
APPD BY	SOM
DATE	12-9-60
SCALE	1"=40'-0"
DWG. NO.	4003-1

DEPT. SAFETY LIGHT. CO

TITLE SAFETY LIGHT BUILDING DRAWING