

ILLINOIS POLLUTION CONTROL BOARD

July 12, 2001

PLEXUS SCIENTIFIC CORPORATION,)	
)	
Petitioner,)	
)	
v.)	PCB 01-120
)	(Air – Variance)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

MARGARET HOWARD OF HEDINGER & HOWARD APPEARED ON BEHALF OF PETITIONER; and

RACHEL DOCTORS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by C.A. Manning):

Plexus Scientific Corporation (Plexus) seeks a five-year variance from the Board’s regulation that prohibits open burning (35 Ill. Adm. Code 237.102). Plexus wants a variance to open burn or “flash” buildings, process equipment, and brush at the former Joliet Army Ammunition Plant (JOAAP) site in Will County, Illinois. The open burning/flashing is designed to decontaminate explosive residue that settled on buildings and process equipment during the manufacture and handling of explosives and munitions.

The Board grants Plexus a variance from the open burning prohibition, subject to the conditions in the order following this opinion. In this opinion, the Board first sets forth the statutory framework for variances, followed by the procedural history of the case. Next, the Board sets forth the rule prohibiting open burning and describes Plexus’ request for relief from that rule. The Board then makes its findings of fact. Finally, the Board discusses and rules on the issues presented.

STATUTORY FRAMEWORK

The Environmental Protection Act (Act) authorizes the Board to “grant individual variances beyond the limitations prescribed in this Act” 415 ILCS 5/35(a) (2000). The Board is further authorized to impose conditions on a variance as the policies of the Act may require. See 415 ILCS 5/36(a) (2000). The Act requires the Illinois Environmental Protection Agency (Agency) to investigate each variance petition and recommend how the Board should dispose of it. 415 ILCS 5/37(a) (2000).

The Board may grant a variance only if the petitioner proves that compliance with the Board regulation from which it seeks relief would impose an arbitrary or unreasonable hardship. See 415 ILCS 5/35(a) (2000). The petitioner must show that its claimed hardship outweighs the public interest in attaining compliance with the regulations. See Willowbrook Motel v. IPCB, 135 Ill. App. 3d 343, 481 N.E.2d 1032, (1st Dist. 1977).

PROCEDURAL HISTORY

Plexus filed its original petition for a variance with the Board on March 5, 2001. On April 5, 2001, the Board issued an order finding the petition deficient, and directed Plexus to file an amended petition by April 20, 2001. On April 23, 2001, Plexus filed its amended petition.¹ On April 27, 2001, the Agency recommended that the Board grant the variance with 33 conditions.

The Board held a hearing in this matter in Bolingbrook, Illinois, on May 2, 2001, before Hearing Officer Bradley Halloran. At the hearing, both Plexus and the Agency introduced evidence. Plexus and the Agency filed post-hearing briefs on May 23, 2001, and June 7, 2001 respectively. Plexus filed a reply to the Agency's post-hearing brief on June 13, 2001.

APPLICABLE REGULATIONS AND REQUESTED RELIEF

Plexus seeks a variance from 35 Ill. Adm. Code 237.102. Section 237.102 provides:

- a) No person shall cause or allow open burning, except as provided in this Part.
- b) No person shall cause or allow the burning of any refuse in any chamber or apparatus, unless such chamber or apparatus is designed for the purpose of disposing of the class of refuse being burned. 35 Ill. Adm. Code 237.102.

Section 237.103 refers specifically to explosive wastes, and states:

Open burning of wastes creating a hazard of explosion, fire or other serious harm, unless authorized by other provisions in this Part, shall be permitted only upon application for the grant of a variance as provided by the Environmental Protection Act (Act) [citation omitted] and by the Pollution Control Board's (Board) Procedural Rules [citation omitted]. 35 Ill. Adm. Code 237.103.

The Act defines open burning as "the combustion of any matter in the open or in an open dump." 415 ILCS 5/3.23 (2000). Plexus seeks a five-year variance so that it may open burn or "flash" buildings, process equipment, and brush at the former JOAAP site. The open burning/flash is designed to decontaminate explosive residue on those items.

¹ Plexus filed its amended petition with the heading "supplemental information." The Board interpreted this filing as satisfying the Board's April 5, 2001 order requiring Plexus to file an amended petition.

FINDINGS OF FACT

The United States Army Operations Support Command (Army) retained Plexus to decontaminate buildings and process equipment at the Load/Assemble Package (LAP) and Manufacturing (MFG) areas of the former JOAAP. Tr. at 74-75.² The JOAAP covers approximately 35 square miles in Will county, and is divided into two sides: the LAP area east of Highway 53, and the MFG area west of Highway 53. Tr. at 74; Pet. at 1.³ The LAP and MFG areas are approximately one mile northeast and north, respectively, of the City of Wilmington. Pet. Exh. F.⁴

The Army constructed the JOAAP during the early 1940s, and it served as one of the largest munitions and explosives manufacturers in the Midwest. Pet. at 2. Operations at the JOAAP included explosives manufacturing and munitions loading, assembling, and packing shipment for off-site use by the military. *Id.* During this process, residual explosives fell on floors, collected in concrete pores of buildings, and settled or condensed onto beams and equipment. Pet. at 1. This residual explosive material is what Plexus terms “explosive potential.” *Id.*

The Army no longer requires the JOAAP in support of national defense, and is demilitarizing the facility. Pet. at 5. Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the JOAAP site is on the National Priorities List. Pet. at 2. The Army is in the process of undergoing an environmental restoration program as prescribed in an October 1998 record of decision (ROD).⁵ Pet. at 2; Pet. Exh. A. Once this environmental restoration program is completed, the LAP area is designated to become part of the Midewin National Tallgrass Prairie, a municipal landfill for Will County, and an industrial park for the City of Wilmington. Pet. at 5.

On January 6, 2000, the Board granted Plexus a 45-day provisional variance to perform open burning/flashing decontamination activities in the MFG area. Plexus v. IEPA (January 6, 2000), PCB 00-112. Plexus successfully completed nine open burning/flashing events during the 45-day provisional variance. Tr. at 75. Portions of the MFG area that have already been decontaminated and remediated are now part of the Midewin National Tallgrass Prairie, the Deer Run Industrial Park, and the Abraham Lincoln National Cemetery. Pet. at 5.

Before the Army can complete the remediation of the JOAPP, the explosive potential of the residual explosives must be addressed. Pet. at 2. The buildings and process equipment exposed to open, uncontained explosives must be decontaminated. *Id.* This decontamination is most safely achieved through the open burning/flashing of contaminated buildings and process equipment. Tr. at

² The transcript of the May 2, 2001 hearing will be referred to as “Tr. at ___.”

³ The March 5, 2001 petition by Plexus will be referred to as “Pet. at ___.”

⁴ The exhibits included with the petition and introduced at hearing will be referred to as “Pet. Exh. ___.”

⁵ The October 1998 ROD was prepared for the Commander of the JOAAP, and lists the selected final and interim remedies for the site. According to the ROD, the United States Environmental Protection Agency and the Agency concurred with the selected remedies.

109, 183-84. Open burning/flashing raises the temperature of buildings and equipment above 570° F, which is the decomposition point of the explosives. Tr. at 83-84, 95. The residue will melt and burn rather than explode. *Id.*

The first burn event planned by Plexus will address contamination at the group of buildings labeled L7. Tr. at 96-97; Pet. Exh. G. The planned order of subsequent burn events is: L17, L14, L16, L15, L19, L10, L8, L9, and L1. Pet. at 6. Decontamination of concrete or unexploded ordinance clearance may be necessary in sites: L1, L2, L3, L11, L34, and M6. *Id.* Plexus will conduct a detailed review and site inspection of each site once Plexus receives notice from the Army that the funds for proceeding with a particular site are available. Am. Pet. at 2.⁶ The petition describes the steps Plexus will take in the decontamination process at Site L7, and states that these same steps will be followed for the decontamination of all other sites subject to this variance. Tr. at 94; Pet. at 6, 11.

Plexus will conduct the decontamination process in three phases.⁷ Pet. Exh. L. The first phase will involve pre-burn activities. *Id.* During this phase, Plexus will prepare a site specific work plan, address community concerns, survey for mercury, PCBs, asbestos, lead paint, and sources of radiation, and abate asbestos and lead paint in accordance with all applicable requirements. *Id.* In addition, Plexus will ventilate plumbing vessels, pipes, and tanks to avoid a pressure explosion (Tr. at 84-95), and properly remove all hazardous materials, including mercury, PCBs, and radioactive material. Pet. Exh. L.

The buildings to be decontaminated will be fire loaded with dry kindling wood and a small amount of diesel fuel to ignite the tonnage. Pet. Exh. L; Am. Pet. at 4. Combustibles will be placed on all floor surfaces and horizontal tops of tanks and other equipment. *Id.* Heavier fire loading will be done around process equipment to ensure complete decontamination. *Id.* Building roofs and transite sidewalls will be removed prior to initiating the burn. *Id.* A firebreak will be cleared around structures to be burned. *Id.* Plexus will also establish an exclusion zone of at least 400 meters around the open burning/flashing site. Tr. at 111. Once the burn is begun, only authorized personnel will be allowed within the exclusion zone for 24 hours. *Id.*

Several buildings on the site are proposed for demolition and removal of equipment, and not necessarily scheduled for open burning/flashing. Pet. Exh. L. Plexus will inspect these buildings for residual explosives. *Id.* Accumulated explosive residuals will be removed or detonated in place if required, and the building and equipment will be dismantled using conventional equipment and techniques. *Id.*

The second phase is the actual open burning event. Pet. Exh. L. Plexus will only conduct open burning events on days where the wind velocity is not less than 5 miles per hour (mph) and not more

⁶ The April 23, 2001 amended petition by Plexus will be referred to as “Am. Pet at ___.”

⁷ Mark Sylvester, project manager and vice president for Plexus, provided a more detailed explanation of the entire process in his testimony at hearing. Tr. at 78-94.

than 14 mph, there is no low cloud ceiling, and it is not an ozone action code red day. Tr. at 90; Pet. Exh. L. Plexus will notify the surrounding community and major industries prior to the start of a burn, and provide a fire watch during and after each burn. *Id.* Once ignited, open flames will be visible for two to four hours. Pet Exh. L. Embers will continue to burn for an additional 20 to 24 hours. *Id.* After the conclusion of each burn, Plexus will test the treated surfaces to confirm that no residual explosives remain. *Id.* If the testing indicates that residual explosives above the actionable level remain, the surfaces will be retreated. *Id.*

The third and final phase is the post burn phase. Pet. Exh. L. Post burn activities include the demolition of building structures, ash testing and removal, and disposal of scrap metal. *Id.*

Plexus provided an estimate of the total impact of the five-year plan to decontaminate the JOAAP. Pet. Exh. T. Plexus estimates a total of 39 burn events, ranging from three events to 10 events per year. *Id.* In total, these 39 burn events will flash 353,472 square feet of structures plus areas of concrete and vegetation. The total estimated emissions of pollutants of concern are: 273,826 pounds (lbs.) of carbon monoxide, 6,001 lbs. of nitrogen oxides, 36,891 lbs. of filterable particulate matter (PM), 26 lbs. of particulate matter less than 10 microns (PM 10), 35,206 lbs. of volatile organics, 8 lbs. of sulfur dioxides, and 34 lbs. of lead. *Id.*

Plexus provided graphs depicting the dispersal of the estimated emissions of the above pollutants. Pet. Exh. V. In every case, by about one kilometer from the burn site (near the boundary of the JOAAP), the concentration of the pollutant is estimated to be far below any applicable actionable standard. See Pet. Exh. V. Many of the pollutants are estimated to approach a non-detect level at or shortly beyond this distance. *Id.*

Plexus provided a comparative analysis of alternative methods to decontaminate this type of explosive residue, including mechanical or chemical removal, chemical or biological deactivation, and rendering inert the explosive potential. Pet. Exh. P. While all of these methods would result in some decontamination, in each case the process would be in some way less effective than open burning/flashing. *Id.* Each process either does not address contamination found in porous surfaces or within cracks or crevices, or is not effective on building surfaces or equipment. *Id.* Many of the alternative methods would also entail a substantial risk to workers and/or generate large amounts of additional waste. *Id.* Open burning/flashing does require the opening of pipes and vessels, and requires the removal of other toxic compounds, both of which entail some risk to workers. *Id.* However, open burning/flashing is expected to generate little additional waste. *Id.*

DISCUSSION

The Board discusses below whether compliance with the open burning prohibition would cause an arbitrary and unreasonable hardship on Plexus, whether the variance will adversely impact the environment, and whether the proposed open burning/flashing is consistent with federal environmental law. Then the Board addresses two conditions recommended by the Agency that Plexus contests. Lastly, the Board discusses whether the Agency's notice of the variance petition was adequate.

Arbitrary and Unreasonable Hardship

The Board has previously found that arbitrary or unreasonable hardship would result where technically and economically feasible means of compliance have not been identified despite diligent efforts by the petitioner. Mobil Oil v. IEPA (Aug. 14, 1986), PCB 86-45, slip op. at 6. The Board finds that, due to the nature of the contamination present at the JOAAP, there is no technically and economically feasible means by which Plexus can comply consistently with Section 237.201.

Plexus presented a comparative analysis by the Army of different methods of decontamination of the explosive potential at the JOAPP. Such methods included mechanical or chemical removal, chemical or biological deactivation, and rendering inert the explosive potential. Pet. Exh. P. None of the alternatives was completely effective in decontaminating both buildings and equipment, and many generated large amounts of additional waste. *Id.* After conducting its own search, the Agency agreed that open burning/flashing is the only viable alternative under these circumstances. Ag. Rec. at 13-14.⁸

The Board agrees with both Plexus and the Agency that denying this variance would cause an arbitrary and unreasonable hardship “in light of the explosive potential and the efforts being made to remediate this site and return it to a useful purpose. Ag. Rec. at 14. Plexus illustrated the dangers of not open burning/flashing contaminated buildings and equipment, and clearing brush at the JOAPP prior to remediation at hearing:

A prior contractor removed scrap material from Joliet [JOAPP] that wasn’t properly heat-treated. The scrap material was released to the scrap yard where an individual who worked at the scrap yard put a torch on it and it killed him. Tr. at 110; Pet. Fin. Br. at 5.⁹

Plexus also testified about a previous incident at an Army facility where a worker, who was clearing a brush-covered area, set a bucket down on unexploded ordnance, and the explosion severed his foot. Tr. at 171.

The Board finds that Plexus will be faced with an arbitrary and unreasonable hardship if required to comply with the regulation prohibiting open burning.

Environmental Impact

Plexus must conduct a site assessment at each of the sites to determine the specific buildings, process equipment, and miscellaneous brush requiring decontamination. Plexus has already surveyed Site L7. The site survey procedure described by Plexus, and made a condition of the variance, is

⁸ The Agency filed its recommendation with the Board on April 27, 2001, which is referred to as “Ag. Rec. at ___.”

⁹ The Petitioner filed its final brief on May 23, 2001, which is referred to as “Pet. Fin. Br. at ___.”

adequate to protect the public and the environment. The petition includes a conservative estimate of the pollutants of concern that could be emitted during future open burning/flashing events, based upon Plexus' past experience with the nine open burning/flashing events conducted under the provisional variance, and its survey of Site L7. The estimated emissions from any single burn event are well below the actionable standard for those pollutants. In addition, Plexus plans to spread the 39 anticipated open burning/flashing events over five years, and has agreed to conditions limiting the square footage it can burn in any year and limiting its Volatile Organic Materials (VOM) emissions to less than 15 tons per year (TPY). These conditions, along with the other conditions described below, will safeguard the public from any potential environmental harm. The Board finds that the variance will not have an adverse environmental impact.

Consistency with Federal Environmental Law

In its April 5, 2001 order that found the original petition to be deficient, the Board required Plexus to provide additional information regarding environmental permits that may be affected by the grant of this variance. Plexus (April 5, 2001), PCB 01-120, slip op. at 4. At hearing, Plexus stated that it had discovered a water permit for the JOAAP facility, but that since the facility was closed, the "permit is no longer active." Tr. at 15-16. Plexus' investigation did not uncover any other permit applicable to the JOAAP. Tr. at 16.

The facts indicate that the open burning/flashing events will not require any additional permits. In its recommendation, the Agency stated that "the performance of any removal or remedial action conducted entirely on-site pursuant to Section 121 of CERCLA does not require a permit . . ." Ag. Rec. at 3. Later in the recommendation, when discussing the impact of the federal Clean Air Act (CAA), the Agency states:

While . . . it is not clear whether the decontamination of these sites is exempt because these sites are covered by CERCLA, it is clear that even if these sites are subject to [Section 176 of the federal CAA] requirements, the estimated emissions are too low to trigger the applicability of these requirements. Ag. Rec. at 19.

The Agency's recommendation does raise an issue regarding the proposed treatment of the ash resulting from the open burn/flashing events. The petition's original work plan assumed the residual ash would be non-hazardous, and left on site. Pet. Exh. L. The Agency challenged this assumption in its recommendation. Ag. Rec. at 9-11. Plexus responded by submitting an alternative protocol to test and properly dispose of all ash resulting from the open burn/flashing events. Pet. Exh. DD. The parties agree that this new protocol should be incorporated as a condition to the variance. Pet. Fin. Br. at 7.

The Board finds that granting this variance with the attached conditions will be consistent with any federal requirements.

Conditions

Both Plexus and the Agency recommended conditions to the proposed variance. Plexus initially listed five general conditions to the proposed variance in its March 5, 2001 petition:

1. The duration of this variance is for five years, commencing on the date the Board issues its final order and ending five years from that date;
2. Open burning shall be conducted pursuant to the JOAPP's federally approved ROD, dated October 1998, and the materials submitted to the Agency in support of the variance;
3. Meteorological conditions compliant with Army Regulation AMC-R 755-8 (Pet. Exh. R) that must be present prior to a burn including:
 - a. Clear skies, broken clouds, or a cloud ceiling of at least 2000 feet;
 - b. Wind velocity is between 5 and 14 miles per hour (mph); and
 - c. Burns will not be conducted on ozone action days or "Code Red" air quality days.
4. The Wilmington emergency dispatch, Wilmington and Elwood fire protection districts shall be notified prior to the commencement of a LAP Area Site Burn; and
5. Notification shall be sent to the Illinois EPA prior to the commencement of a LAP Area Site Burn and again when the burn is completed. (Address to where notice is to be sent is omitted). Pet. at 19.

The Agency presented 33 alternate conditions in its April 27, 2001 recommendation to the Board. Ag. Rec. at 20-25. These conditions specify how Plexus and the Agency will address and resolve complaints, prohibit burning specified types and amounts of material, and list procedures for both pre-burn activities and the open burning/flashing of buildings, equipment and structures. Ag. Rec. at 20-24. The conditions also specify how Plexus will test and dispose of ash after the open burning/flashing, and state requirements for records and reporting to the Agency. Ag. Rec. at 24-25. Plexus initially accepted 30 of the 33 conditions in the Agency's recommendation. Pet. Fin. Br. at 7. Plexus and the Agency later agreed to revise the condition concerning the resolution of complaints. See Pet. Fin. Reply Br. at 2. Plexus continues to object to the remaining two conditions, concerning the Agency's required approval of site surveys and the petitioner's discretion to determine what is adequate fire protection. Pet. Fin. Reply Br. at 2.¹⁰

¹⁰ Petitioner filed a reply to the Agency's final brief on June 13, 2001, which is referred to as "Pet. Fin. Reply Br. at ___."

Agency's Written Approval of Site Surveys

The Agency, in its April 27, 2001 recommendation, proposed a condition that gives it the authority to review Plexus site surveys within 30 days for consistency with the Board's variance. Ag. Rec. at 21. The condition requires Plexus to obtain the Agency's written approval of future site surveys before it conducts open burning/flashing on the site. Ag. Rec. at 21. The proposed condition states that:

The Agency shall have 30 days to review the information required in subsection (b) of this Section for consistency with the [variance]. If the Agency has any comments or questions, it shall notify the Petitioner in writing. The Petitioner will address these comments in consultation with the Agency and must receive the Agency's written approval before proceeding with flashing on the identified site. Ag. Rec. at 21.

The Agency stated that this condition was necessary because Plexus has not yet completed more detailed surveys for sites beyond L7, the first site that Plexus plans to conduct open burning/flashing. Ag. Br. at 2. The Agency recommended that the Board grant this variance on the premise that future unsurveyed sites will be similar to L7, and repeated variance proceedings would be duplicative. Ag. Br. at 2. The Agency based its recommendation on the assumption that "future sites will be similar in size or smaller, and that the types and quantity of emissions will also be similar." Ag. Br. at 2. The Agency alleges that it requests to review future site surveys because of the "uncertainty regarding elements that would reflect air quality." Ag. Br. at 2.

The Agency does not cite to statutory or regulatory authority that permits it to revoke a variance granted by the Board. The Agency solely claims that reviewing site surveys for consistency falls under its role in implementing the terms of variances. Ag. Br. at 3. If the Agency finds a future site survey is inconsistent, it proposes that Plexus must request an amended variance or desist burning activity. Ag. Br. at 3.

Plexus challenged the proposed condition on two grounds: (1) the Agency did not include a procedure to evaluate whether site surveys are consistent with the Board order; and (2) the Agency does not have the authority to revoke a variance. Pet. Fin. Reply at 2. Plexus stated that the Agency did not provide a procedure for the Agency to follow after it receives a complaint. Tr. at 116-118; Pet. Fin. Br. at 7. Plexus expressed concern that the lack of detail could cause delay, whether or not it is warranted. Tr. at 116-117; Pet. Fin. Br. at 7. Plexus stated that information concerning air quality, which it believes includes details of buildings to be flashed and anticipated air emissions, was previously addressed in pleadings, exhibits, and other proposed conditions accepted by Plexus. Pet. Fin. Reply at 3.

Plexus alleged that "[i]n essence, there are no variables in this case." Tr. at 210-11; Pet. Fin. Reply. at 3. Plexus described that it derived its estimated figures for the amount of contaminated material to be burned from comprehensive lists of buildings and vegetation. Plexus contends that "[t]he number and size of the structures likely to be flashed have already been identified and Plexus' concern

about details pertains to the equipment within the buildings rather than the buildings themselves.” Pet. Fin. Reply at 3. Plexus stated that Exhibit S lists every building in each LAP group, provides estimated square footage of each building, and identifies whether it will be flashed. Pet. Fin. Reply at 3, Exh. S. The same exhibit also lists the amount of vegetation Plexus will burn and resultant emissions in each proposed area. Pet. Fin. Reply at 3. Plexus stated that “the total square footage was provided (and is limited in the proposed conditions) and [air emissions] modeling was conducted accordingly.” Pet. Fin. Reply at 3.

Plexus discussed how the estimates are also subject to the conditions proposed by the Agency. Plexus agrees to annually open burn/flash a maximum of 392,000 square feet or emit less than 15 TPY of VOM. “If the total square footage is increased due to vegetation, then the VOM emissions are limited to less than 15 TPY. Exh. EE; Pet. Fin. Reply at 3. Plexus also alleged that, according to the Agency, “the modeling was extremely appropriate to estimate future emissions even given the different buildings in each group.” Tr. 210-11; Pet. Fin. Reply at 3.

Plexus also questioned the Agency’s authority to evaluate its compliance with the Board’s variance, where the Agency “could effectively rescind the variance without any further input from the Board.” Tr. at 117; Pet. Fin. Br. at 7. Plexus alleges that the Agency included the condition because it does not have permitting authority over the type of open burning activities involved in this variance. Tr. at 179-81; Pet. Fin. Reply at 2. “Plexus contends that a lack of permitting authority does not entitle the [Agency] to impose conditions in a variance just because they may be properly included in a permit.” Tr. at 181-82; Pet. Fin. Reply at 2.

The Board sees the importance of providing the Agency with future site surveys before Plexus conducts open burning/flushing. This notice would allow the Agency to identify and question any discrepancies in the surveys, and bring it to the attention of Plexus. However, the Board finds that Plexus provided adequate estimates of the amount of explosive potential to be burned and resulting emissions to grant a variance for the remaining JOAPP sites. Plexus points out that Jeffrey Sprague, with the Agency, stated that “Plexus uses a modeling tool that is appropriate for this particular situation.” Tr. at 209. Sprague stated that the approach taken by Plexus was correct, and that Plexus used very conservative assumptions in executing the model. Tr. at 209.

The Board recognizes that Plexus has not set out a specific plan for each site in its proposed variance. The petition does not state with certainty the amount of equipment, square footage, and brush that may require decontamination or clearing. However, the Board finds that the conservative estimates in modeling and the conditions proposed by the Agency that restrict the amount and type of materials to be burned ensure that Plexus will conduct burn events in conformance with the variance. The information provided by Plexus and the Agency’s testimony show that a five-year variance is more appropriate than separate variances for each of the 39 open burning/flushing events.

The Agency requests in its condition to have the authority to effectively revoke the variance if it decides that the site survey does not comply with the Board’s variance. The Act provides that the Agency will investigate the petition for a variance, consider views of people who may be adversely

affected by the granting of the variance, and recommend whether the Board should grant or deny the variance. See 415 ILCS 5/37(a) (2000). The Board finds that the authority granted to the Agency concerning variances under the Act does not extend to approval or revocation of part or all of Board variances.

Since the condition requiring Plexus to obtain written approval of future site surveys would grant the Agency authority to revoke the variance, the Board excludes this part of the condition in its order. The Board will include the part of the condition that requires Plexus to submit future site surveys to the Agency to ensure that the Agency receives notice of details concerning each burn. If the Agency finds that Plexus submits a site survey that does not conform to the variance, and Plexus will not alter its plans to conduct the open burning/flashings at the particular site, the Agency may, through the Attorney General, bring an action against Plexus for an appropriate remedy.

Fire Protection

Plexus and the Agency disagree as to the appropriate language of the condition concerning adequate fire protection. The Agency wants to ensure that Plexus is held responsible for providing adequate fire protection. Ag. Br. at 3. Plexus proposes alternate language to ensure the fire departments, rather than the Agency, determine what is adequate fire protection on the site. Pet. Exh. FF. The Board addresses both concerns by substituting language that gives Plexus both the responsibility to provide adequate fire protection and the ultimate authority to determine what is adequate for each site. This allows Plexus to obtain the professional opinion of the Wilmington and Elwood Fire Departments as to what is necessary to ensure that adequate fire protection is available, while ensuring that Plexus ultimately remains responsible for such provisions.

The Agency, in its recommendation, initially proposed the following language in paragraph (c) of Open Burning/Flashing of Buildings, Equipment and Structures:

The open burning site shall be provided with adequate fire protection and with such equipment as is necessary to control the fire. Open burning shall be conducted with appropriate safety considerations. Ag. Rec. at 23.

Plexus contested the language of the condition, stating that it “does not state what is ‘adequate’ or who will make that determination.” Pet. Fin. Br. at 8. Plexus stated that the condition could require fire equipment to be on-site when the local fire chiefs determine that it will be unnecessary for the equipment to be at the site. Pet. Fin. Br. at 8. When Plexus conducted open burning/flashings under a previous 45-day provisional variance, the Elwood Fire Chief determined that it was unnecessary to have fire equipment at the site, despite the offer by Plexus to pay for the fire equipment to be present during the burns.

Plexus proposed the following alternate language:

Adequate fire protection and equipment, as determined to be necessary by the

Wilmington Fire Department, will be available at the open burn site. Open burning shall be conducted with appropriate safety considerations. Pet. Exh. FF.

The Agency, in its post-hearing brief, responded that the alternate condition proposed by Plexus “would enable Plexus to avoid responsibility for providing fire protection altogether.” Ag. Br. at 3. The Agency is concerned that the condition shifts the responsibility for determining what is adequate fire protection from Plexus to the City of Wilmington. Ag. Br. at 4. The Agency expressed that, “[i]f there is an incident as a result of a burn, regardless of whether the City of Wilmington has indicated that it would provide emergency response, the Petitioner is responsible for securing the necessary resources for safely conducting its activities. Ag. Br. at 3.

Plexus responds to the Agency’s concern by reiterating that it “wanted to ensure that the professional fire fighters responsible for responding to calls at the JOAPP were the individuals who determine what is adequate fire protection.” Pet. Reply at 4. Plexus offered the revised language to address both concerns:

The open burning site shall be provided with adequate fire protection and with such equipment as is necessary to control the fire, as determined by Petitioner. Open burning shall be conducted with appropriate safety considerations. Pet. Fin. Reply Br. at 5.

The Board agrees that this condition better addresses who will determine what fire protection is necessary at the site. However, the revised condition does not specify that petitioner is solely responsibly for providing adequate fire protection. The Board amends the revised language submitted to state the following:

Plexus is solely responsible for providing adequate fire protection and such equipment as is necessary to control the fire. Open burning shall be conducted with appropriate safety considerations. (emphasis added)

The new language ensures that Plexus has both the obligation and responsibility to determine what is adequate fire protection and to ensure that such protection is available when conducting open burning/flushing at JOAPP.

Notice

The Agency questioned whether the notice it provided was adequate as it relates to site M6. The petition states that the buildings and process equipment scheduled for decontamination are in the LAP area of the JOAPP, and that decontamination of the MFG area has been completed. Pet. at 1 and 5. However, the petition also states that Site M6 may also need to further decontamination. Pet. at 6. The notice published in the *Joliet Herald News* by the Agency states that JOAAP is located “East of Highway 53,” but does not reference the specific buildings or locations that are subject to the

variance. Resp. Exh. 10.¹¹

The Agency states that the site, M6, appears to be located within the MFG area, which is located west of Highway 53. Ag. Rec. at 7, Pet. Exh. E. Since the notice only stated the variance applied to sites east of the highway, the Agency believes that the notice was faulty with respect to Site M6.

Plexus responded at hearing that the notice was sufficient with respect to all sites proposed for open burn/flashing events. Tr. at 153-56. Plexus stated that while Site M6 is west of Highway 53, “the work is exactly identical.”

Section 104.214 of the Board’s procedural rules requires the Agency to publish notice of the petition within 14 days of receipt of the petition. See 35 Ill. Adm. Code 104.214; see also 415 ILCS 5/37(a) (2000). The notice must include, among other things:

The street address of the facility or pollution source, and if there is no street address, then the legal description or the location with reference to any well known landmark, highway, road, thoroughfare or intersection 35 Ill. Adm. Code 104.214(e).

The JOAAP is a large facility covering more than 35 square miles of land in Will County. It has existed for nearly 60 years. The Board agrees with Plexus that the “JOAAP is itself a well-known landmark” Pet. Fin. Br. at 7. The Board finds that, although the Agency’s notice could have been more accurate in referring to the location of the entire JOAAP facility, it was sufficient to satisfy the notice requirements of Section 37(a) of the Act and the Board’s procedural rules. Moreover, the notice requirement is designed to allow persons who object to a variance petition to request that a hearing be held. Here, the Board, in its discretion, held a hearing.

CONCLUSION

The Board finds that failure to grant this variance will impose an arbitrary and unreasonable hardship on Plexus. The Board therefore grants Plexus a variance from 35 Ill. Adm. Code 237.102, subject to the conditions set forth below. This opinion constitutes the Board’s findings of fact and conclusions of law.

ORDER

1. The Board grants Plexus Scientific Corporation (Plexus) a variance from 35 Ill. Adm. Code 237.102, to allow it to conduct open burning/flashing to decontaminate explosive material on buildings and process equipment and clear vegetation at the Load/Assembly/Package area, and potentially the Manufacturing area of the Joliet Army Ammunition Plant (JOAPP) site in Will County, Illinois.

¹¹ The exhibits from the Agency’s recommendation will be referred to as “Resp. Exh ___.”

2. This variance is in effect for five years from the date of this order, or until Plexus completes the open burning/flashing in accordance with this variance, whichever occurs first.
3. This variance is subject to the following conditions:
 - a. General Conditions:
 - (1) As the variance is limited to 35 Ill. Adm. Code 237.102 and 237.103, Plexus must comply with all other applicable regulations, including 35 Ill. Adm. Code Subtitle G, as well as the Illinois Environmental Protection Act (Act) and the Clean Air Act.
 - (2) Complaints:
 - (a) If any complaint concerning air pollution as defined in 35 Ill. Adm. Code 3.02 is received concerning the activities authorized by this variance, Plexus must not initiate any new burning/flashing until the Agency has given written authorization that the petitioner may proceed. This written authorization must be received within five working days from the Agency's receipt of the complaint.
 - (b) If Plexus or the United States Army Operations Support Command (Army) receives a complaint, or any other person notifies Plexus of a complaint, Plexus must notify the Agency within 12 hours.
 - (c) If the Agency receives a complaint, or the Board or another person notifies the Agency of a complaint, the Agency must notify Plexus within 12 hours.
 - (d) Plexus and the Agency must evaluate the complaint to determine whether any action can and should be taken by Plexus to minimize the effect complained of in subsequent burns.
 - (3) Plexus is prohibited from burning any pressure treated wood or flashing any areas of any buildings that contain lead shielding.
 - (4) Plexus is limited to flashing 392,000 ft² per year and causing emissions of less than 15 TPY VOM.

- (5) Plexus is prohibited from burning refuse, including empty paint cans and other debris that are not likely to be contaminated with explosive residue.

b. Pre-Burn Activities:

- (1) As the site evaluation cannot be completed until after Plexus is awarded the funds that become available for a particular parcel, Plexus must notify the Agency within 14 days after it receives notice of funding of its intent to conduct the survey and expected completion date for a particular site.
- (2) Upon completion of the site survey, Plexus must provide a copy to the Agency detailing the explosive risk associated with the structures on the particular site equivalent to Pet. Exhibits G and H within 30 days of completing the survey. In addition to the above information, the following must be included:
 - (a) An estimate of the emissions of criteria pollutants;
 - (b) For structures: the name of the building and a description of any distinguishing features, including the number of levels and square footage; and
 - (c) For those areas where the material to be burned is brush, a map of the area to be burned, the estimated square footage, and a narrative stating why this particular area merits flashing.
- (3) The Agency has 30 days from the date of submission to review the information contained in the site survey. If the Agency has any comments or questions, it must notify Plexus in writing within those 30 days. Plexus and Agency personnel will review those comments or questions and work to resolve any outstanding issues.
- (4) Plexus must create suitable firebreaks around the buildings and/or land areas being flashed.
- (5) Plexus must remove as much of the flaking lead based paint (LBP) as feasible from each building. Lead removal must occur prior to asbestos removal. The removal of LBP must be done in accordance with the provisions of 29 CRF 1926.61 and 1926.62 and Appendices. Demolition debris with LBP still adhered may be managed as a solid

waste. However, if the LBP is removed from the substrate prior to demolition, then the LBP waste is a special waste. The waste must also be tested to determine if it is a hazardous waste. The entire waste stream (*e.g.*, paint chips, blasting grit with paint chips, stripping agent with paint chips) must be analyzed. The handling and disposal of hazardous waste in Illinois must be conducted in accordance with 35 Ill. Adm. Code Parts 722-26 and 728. If the LBP waste is hazardous, then the waste must be treated to meet the standards set forth in 35 Ill. Adm. Code 728 prior to land disposal at a facility that is permitted by the Agency to accept that waste. Plexus must use the treatment technology of stabilization so the LBP meets the treatment standards prior to land disposal. If Plexus determines that the LBP waste is non-hazardous special waste, the LBP waste may be certified by the generator to be just solid waste pursuant to the requirements set forth in Section 22.48 of the Act. 415 ILCS 5/22.48 (2000). Documentation of the certification must be maintained by the generator and made available to the Agency or disposal company upon request. If the waste is certified to be just a solid waste, it may be handled as general refuse and no manifest or additional record keeping requirements are applicable.

- (6) Plexus must remove and properly dispose of as much of the friable and non-friable asbestos from the applicable structure, as well as any such asbestos occurring within 10 feet on a connecting or nearby structure, *e.g.*, conveyor, as can safely be accomplished, even if such structure is not intended to be flashed. Plexus must remove and dispose of the asbestos in accordance with the requirements of 40 C.F.R. 61.145 through 61.149, and all other applicable State and federal requirements. Plexus will not burn/flash asbestos.
- (7) Hazardous substances, including mercury, PCBs, radioactive material, fluorescent lamps, mercury vapor lights, light ballasts, and unexploded ordnance in buildings and structures will be removed prior to flashing and properly disposed.

c. Open Burning/Flashing of Building Equipment and Structures

- (1) Notifications:
 - (a) At least 14 days before any burn, Plexus must notify, in writing, the Agency, and the surrounding communities of Elwood and Wilmington, of the building, or site, in the case of land clearing, that it plans to flash, the date, and location of the structure or

site. The notification to the Agency must state that Plexus has completed its pre-burn activities as detailed in Section B above.

- (b) Plexus must notify in writing the Prairie Supervisor of Midewin National Tallgrass Prairie at least 24 hours before any burn, of the building, or site, in the case of land clearing, the date, and the location of the structure or site at:

Fax Number: (815) 423-6376

Phone Number: (815) 423-6370

30071 S. State Rte. 53

Wilmington, Illinois 60481

- (c) Plexus must notify by telephone on the day of the scheduled burn, but no less than one hour before initiation of the flash, the fire departments of Wilmington and Elwood at the following non-emergency telephone numbers:

Elwood Fire Department (815) 423-5224

Wilmington Fire Department (815) 476-2121

- (2) The open burning site must be established on a cleared area and access by unauthorized personnel must be adequately restricted.
- (1) Plexus is solely responsible for providing adequate fire protection and such equipment as is necessary to control the fire. Open burning must be conducted with appropriate safety considerations.
- (2) Flashing is limited to buildings, structures, and process equipment on sites that have evidence of contamination of explosive waste on L1, L7, L8, L9, L10, L14, L15, L16, L17, L18, L19, and M6, and brush or concrete on L1, L2, L3, L11, and L34 that may contain unexploded ordinance or explosive waste contamination.
- (3) Plexus must only use the materials, as described in the petition, to initiate the flash: wood pallets, oak boxes, straw, and virgin No. 2 fuel oil.
- (4) Open burning must be initiated no earlier than 10 a.m. and no later than 2 p.m. central daylight time. Most material will have been “flashed” before dusk. If Plexus plans to flash after 2 p.m., then Plexus must obtain approval from either Robert Swinford or Terry Sweitzer, or

subsequent Agency personnel, at the phone number listed below to ensure that adequate dispersion will occur.

- (5) Open burning must be conducted in such a manner as to not create a visibility hazard on roadways, railroad tracks or airfields.
- (6) Open burning must be conducted only when the wind velocity exceeds 5 mph and is less than 14 mph.
- (7) Open burning must not be conducted under the following weather conditions:
 - (a) During electrical storms, thunderstorms, or during periods of forecasted high probability (50% or greater) as given by the local/National Weather Service (NWS).
 - (b) During periods of precipitation or high probability (75% or greater) as given by NWS.
 - (c) During periods of reduced visibility (less than one mile).
 - (d) When estimated cloud cover is greater than 80% and the cloud ceiling is estimated as less than 2000 feet.
- (8) Open burning must not be conducted during ozone action, advisory or alert days, as determined by contacting Terry Sweitzer, Manager – Air Monitoring Section, Illinois EPA, at (217) 782-7438.
- (9) Agency personnel may witness burns. The Agency will notify Plexus of its request at least 24 hours in advance of the scheduled burn to make appropriate arrangements.

d. Management of Ash

Plexus must determine whether the ash, which is a waste, is also a hazardous waste pursuant to 35 Ill. Adm. Code 722.111. Even if the ash is determined to be non-hazardous, a special waste determination must be made pursuant to 35 Ill. Adm. Code 808.121. If the ash is determined to be a hazardous waste, then it must be managed in accordance with all applicable regulations, including 35 Ill. Adm. Code 722-726 and 728. If the ash is hazardous, it must be disposed at a Resource Conservation and Recovery Act (RCRA) hazardous waste permitted facility. If the ash is a non-hazardous special waste, Plexus must comply with 35 Ill. Adm. Code 808 and 809. Furthermore, even if the

waste has been certified as non-special waste pursuant to Section 22.48 of the Act (415 ILCS 5/22.48 (2000)), Plexus must dispose of the ash at an off-site state permitted landfill. The ash cannot be left on the site.

e. Records and Reports

- (1) All notifications required by this order must be sent both to the Compliance Unit and to the Agency's Field Office at the following addresses:

Bureau of Air – Compliance Unit
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

Anju Bhatia
Bureau of Air
Illinois Environmental Protection Agency
9511 W. Harrison
Des Plaines, Illinois 60016

- (2) Plexus must maintain records documenting the activities required by Sections B(1)-(7) of Pre-Burn activities conditions.
- (3) For each burn, Plexus will record the following:
- (a) Date and time;
 - (b) Weather conditions including wind speed, precipitation, visibility, and cloud cover;
 - (c) Square footage and estimated emissions, and
 - (d) For each building and for each burn at that building, the amount of material loaded (*e.g.*, number of pallets, tons of straw, and gallons of virgin No. 2 fuel oil) and estimated pounds of TNT.
- (4) For LBP waste, if it is determined to be non-hazardous special waste, documentation of the certification pursuant to Section 22.48 of the Act. 415 ILCS 5/22.48 (2000).
- (5) Within 45 days after the completion of open burning/flashing any site, *e.g.*, L7, Plexus must furnish the Agency a copy of a post-burn report

similar in content to that provided in Petitioner's Exhibit K – Completion Report. In addition to the information included in Exhibit K, it must include a summary of the information recorded in Sections E(1) through (5) – Records and Reports.

- (6) Plexus must notify the Agency once all open burning has been completed at each site and when the project is completed.

IT IS SO ORDERED.

Board Member S.T. Lawton, Jr. abstained.

This variance is not binding on Plexus Scientific Corporation (Plexus) “until the executed certificate is filed with the Board and served on the Agency.” 35 Ill. Adm. Code 104.240. “Failure to timely file the executed certificate with the Board and serve the Agency renders the variance void.” *Id.* However, the time period for filing and service will be held in abeyance during any appeal of the Board's decision or any review of a motion to reconsider.

If Plexus chooses to accept this variance, it must execute a Certificate of Acceptance of all terms and conditions of the variance. Plexus must, within 45 days after the date of the above order, file the executed certificate with the Clerk of the Board and serve the Agency at the following respective addresses:

Pollution Control Board
Attention: Clerk of the Board
James R. Thompson Center
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601-3218

Rachel L. Doctors
Division of Legal Counsel
Illinois Environmental Protection Agency
P.O. Box 19276
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

The form of the Certificate of Acceptance is as follows:

CERTIFICATE OF ACCEPTANCE

Plexus Scientific Corporation accepts and agrees to be bound by all terms and conditions of the Pollution Control Board's July 12, 2001 order in

PCB 01-120.

Petitioner

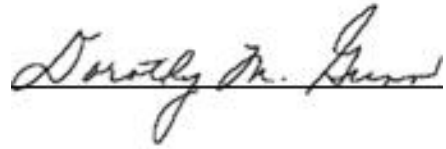
Authorized Agent

Title

Date

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (2000)) provides for the appeal of final Board orders to the Illinois Appellate Court within 35 days of the date of service of this order. Illinois Supreme Court Rule 335 establishes such filing requirements. See 172 Ill. 2d R. 335; see also 35 Ill. Adm. Code 101.520, Motions for Reconsideration.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 12th day of July 2001 by a vote of 4-0.

A handwritten signature in cursive script, reading "Dorothy M. Gunn", written over a horizontal line.

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board