EXPLANATION OF SIGNIFICANT DIFFERENCES
BAUSCH & LOMB, FRAME CENTER SITE

Town of Chili / Monroe County / Registry No. 8-28-061 / October 1998

Prepared by the New York State Department of Environmental Conservation
Division of Environmental Remediation

1.0 INTRODUCTION

The purpose of this notice is to describe the progress of the cleanup at the Bausch & Lomb, Frame Center Site and to inform you about a change in the Site remedy.

The Site is located on Paul Road in the Town of Chili, New York. In February 1998, the New York State Department of Environmental Conservation (NYSDEC) signed a Record of Decision (ROD) which selected a remedy to cleanup the Site. The selected remedy involved excavation of approximately 3,850 cubic yards of source area soils, monitored natural attenuation of volatile organic contaminants, or VOCs, detected in groundwater, and implementation of groundwater controls should they become necessary. During recent design investigations, Bausch & Lomb discovered contaminated groundwater in wells that previously did not contain contaminants at levels of concern. As a result, Bausch & Lomb quickly implemented the groundwater contingency component of the site remedy, well in advance of when this work would otherwise have been expected to occur.

Bausch & Lomb also collected a number of soil samples from within each of the three contaminant source areas previously identified. The tests showed lower than expected VOC concentrations in source area soils. Based on this new information, the NYSDEC is revising the remedy by reducing the amount of soil requiring removal and off-site disposal and providing for installation of groundwater collection systems in each of the previously identified source areas. This change will more effectively achieve the remedial goal of VOC mass reduction by reducing the volume of non-source soils to be excavated and initiating groundwater controls sooner in the implementation schedule.

This Explanation of Significant Differences (ESD) will become part of the Administrative Record for this Site. The information here is a summary of what can be found in greater detail in documents that have been placed in the following repositories:

Chili Public Library
3235 Chili Avenue
Rochester, New York
(716) 889-2200

NYSDEC Regional Office
6274 East Avon-Lima Road
Avon, New York 14414
Contact: Meaghan Boice-Green
(716) 226-2466

Although this is not a request for comments, interested persons are invited to contact the NYSDEC Project Manager for this site to obtain more information or have questions answered.

2.0 SITE DESCRIPTION AND ORIGINAL REMEDY

2.1 Site History and Extent of Contamination, and Selected Remedy

The Bausch & Lomb Frame Center is an 89 acre industrial facility constructed in 1961 south of Paul Road in Chili, New York. From 1961 to 1997, operations at the facility included production of plastic and metal eyeglass frames involving the use of solvents and plating metals.

The Bausch & Lomb Frame Center was listed on the New York State Registry of Inactive Hazardous Waste Disposal Sites as a Class 2 site after sampling in September 1982, January 1983 and November 1983 indicated heavy metals and oil and grease in sediment in an on-site drainage ditch. Additional sampling in August 1984 and 1985 detected chlorinated solvents in on-site groundwater. The Registry listing includes approximately 40 acres of the property located south of the manufacturing building.

Between 1990 and 1997, Bausch & Lomb conducted a remedial investigation /feasibility study (RI/FS) of the site under a legal agreement with NYSDEC. The investigation involved sampling of sediment, soil, and groundwater. The primary contaminants found in the on-site drainage ditch sediments were metals such as cadmium, chromium, lead, mercury, nickel, silver and zinc. In addition to metals, polycyclic aromatic hydrocarbons (PAHs) such as acenapthene, phenanthrene, fluoranthene were also found in the sediment of the on-site drainage ditch. In November 1995, Bausch & Lomb removed and disposed of approximately 1,175 cubic yards of contaminated sediment and soil from the on-site drainage ditch as an Interim Remedial Measure (IRM).

The investigation also revealed that VOC contaminated groundwater exists both in the shallow overburden (above bedrock) soil and the overburden/top of bedrock interface zone at levels exceeding the New York State Groundwater Standards. The primary groundwater contaminants are chlorinated solvents such as trichloroethene (TCE), 1,1,1 trichloroethane, cis-1,2 dichloroethene, and vinyl chloride. Results of soil samples collected from suspected source areas did not exceed soil cleanup objectives and indicated that, under the conditions specific to this site, much of the VOCs exist in the dissolved phase. To evaluate site remedial options (particularly source area excavation), "VOC source areas" were defined from high-resolution geoprobe data as saturated soils associated with groundwater containing TCE concentrations in excess of 25 ppm.

2.2 Selected Remedy

Based on the results of the site investigations, the successful sediment removal IRM, and a feasibility study that evaluated different cleanup options, NYSDEC proposed a cleanup plan and presented it at a public meeting in January 1998. After receiving comments from the public, in February 1998 NYSDEC finalized the cleanup plan in a document called a Record of Decision (ROD). The ROD called for VOC mass reduction and mitigation of contaminant migration and consisted of the following components:

- Excavation and off-site disposal of approximately 3,850 yds^3 of contaminated soil from within three designated VOC source areas.

- Implementation of a pre-design field investigation to address limited data gaps and provide additional VOC data necessary to confirm the limits of the source areas requiring excavation.

- Removal and on-site pre-treatment of groundwater encountered during excavation activities and discharge to the local sewage treatment plant.

- Installation of "early warning" groundwater monitoring wells to allow sufficient time to implement contingency plans (e.g., groundwater collection and treatment) if groundwater monitoring indicates that VOCs are migrating off-site.

- Evaluation of the need for institutional controls, such as site fencing or deed restrictions, prior to the site being considered for reclassification.

- Institution of a long term groundwater monitoring program to assess the natural breakdown of contaminants and to provide information about the effectiveness of the selected remedy.

3.0 CURRENT STATUS

Bausch & Lomb recently sold its Frame Center facility, but continues to operate in a portion of the building. Bausch & Lomb also maintains responsibility for environmental problems resulting from its past operations and is currently working with the Department, the New York State Department of Health (NYSDOH) and the Monroe County Health Department to clean up the remaining contaminated groundwater and soil at the site.

4.0 DESCRIPTION OF SIGNIFICANT DIFFERENCES

4.1 New Information

Bausch & Lomb recently completed a pre-design field investigation intended to address data gaps and confirm the limits of the source areas requiring excavation. Additional soil testing was also performed in August 1998 at the request of NYSDEC to compare concentrations of chlorinated VOCs in each of the three source areas to action levels referenced in NYSDEC's Technical Administrative Guidance Memorandum (TAGM) #3028 (*"Contained-In" Criteria for Contaminated Media*). This was required to fully evaluate the regulatory requirements for off-site disposal of the soil. Results of this soil testing indicated that none of the tested soils contain VOC levels above the TAGM #3038 levels and that direct landfilling of the soils was feasible.

The soil test results were also compared to the recommended soil cleanup objectives for groundwater protection referenced in NYSDEC's TAGM #4046 (*Determination of Soil Cleanup Objectives and Cleanup Levels*). TCE was detected in most of the discrete soil samples, however, only 4 of 22 samples contained TCE at concentrations exceeding TAGM #4046 objectives. These four samples were from locations where soil removal will still occur.

During the pre-design investigation, concentrations of VOCs (including TCE and cis-1,2-DCE) were detected in two groundwater monitoring wells which had not previously showed contamination. Results of subsequent sampling of new on-site wells installed further downgradient confirmed that contaminated groundwater is likely migrating off-site in a southwesterly direction within the deep overburden/bedrock interface zone. To mitigate further potential off-site migration of VOCs, Bausch & Lomb quickly implemented a groundwater contingency measure, as provided in the ROD, and installed two on-site

groundwater extraction wells approximately 160 feet from the western property line to intercept the groundwater. Since August 1998, groundwater has been drawn into the wells and pumped to the surface where it is treated with a carbon adsorption system and then discharged to the sanitary sewer. Continued operation of the groundwater extraction and treatment system is expected to be part of the long-term site remedial program. Additional off-site investigation is also planned to delineate the extent of groundwater contamination and determine whether the current groundwater extraction system is adequate.

4.2 Comparison of Changes with the Original Remedy

The original remedy, as described in the February 1998 ROD, called for VOC mass reduction and mitigation of contaminant migration. VOC mass reduction was to be achieved by excavation and off-site disposal of approximately 3,850 yds^3 of soil in areas of elevated groundwater concentrations (greater than 25 ppm TCE). The original remedy also called for long-term groundwater monitoring but did not call for active groundwater recovery from these VOC source areas. Based on the new soil data, indicating TCE concentrations in soil at or near the recommended cleanup level, and previous groundwater data, showing elevated concentrations of VOCs (greater than 25 ppm) in these same areas, the NYSDEC is revising the remedy to more efficiently meet the remediation goals specified in the ROD.

The changes are limited to the following: 1) reducing the volume of contaminated soil to be excavated and disposed off-site by targeting soils which have the potential for the highest VOC concentrations, and 2) enhancing VOC removal by installing a groundwater recovery system near each of the three source areas. Other components of the remedy, including installation of "early warning" groundwater monitoring wells downgradient of each of the plumes and long-term monitoring to assess the effectiveness of the remedy, will not change. Bausch & Lomb's recent installation of the two groundwater extraction wells and pretreatment system in response to detections of elevated VOCs in groundwater near the western property boundary is considered part of the original remedy since it was implemented as a contingency measure under the ROD.

Comparison of Original Remedy to New Remedy

Element	Original Remedy	Revised Remedy
Remediation goals:	Reduce mass of contaminants, and mitigate migration of contaminated groundwater	No change
Components of remedy:	VOC mass removal (i.e. soil removal) and long-term groundwater monitoring	VOC mass removal (soil and groundwater) and long-term groundwater monitoring
Soil removal volumes:	3,850 cubic yards	400 cubic yards
Groundwater recovery:	Included only as a contingency, if monitoring shows migration off-site	Install new groundwater recovery wells in each of the three source areas
Cost estimate:	Approx. $1,200,000	No significant change

The revised remedy clearly represents a significant change in scope. The NYSDEC believes the changes made to the remedy will result in a more efficient yet equally effective cleanup. The mass of VOC contamination at the site will be reduced by targeted soil excavation and groundwater extraction in each of the three source areas. The revised limits of soil excavations encompass areas where the highest concentrations of VOCs have been detected in groundwater. In other words, "VOC source areas" have been redefined as areas with greater than 100 ppm TCE in groundwater instead of 25 ppm and represent

the probable vicinity of contaminant releases. To further reduce the mass of VOCs in each of the source areas, groundwater which has been shown to contain the majority of the mass of VOCs at the site, will be extracted, pumped through the existing carbon adsorption treatment system, then discharged to the sanitary sewer. The following table compares the components of the original remedy, including estimated soil removal volumes, to the new remedy:

The Department has determined that, although the reduction in soil removal volumes and the addition of groundwater collection in the three source areas is significant, the proposed change in the ROD does not qualify as a *fundamental* change to the remedial objectives, scope, performance, or cost of the overall remedy. The revised remedy utilizes all the same components and will met the same objectives as the February, 1998 ROD, therefore, the Department is not amending the ROD.

5.0 SCHEDULE AND MORE INFORMATION

The NYSDEC has reviewed the Remedial Design/ Remedial Action (RD/RA) Work Plan and has been negotiating with Bausch & Lomb to execute a legal agreement to implement the remedy. Bausch & Lomb is in the process of preparing construction documents for NYSDEC review. Once the RD/RA agreement is signed and the design documents are approved, Bausch & Lomb will solicit bids from qualified contractors to begin the work. Soil removal, well installation and associated cleanup activities are anticipated to commence this year and be completed within two months. During field activities, the NYSDEC's Bureau of Construction Services will provide oversight to ensure that the work is performed in accordance with the approved work plans and that all significant field modifications are acceptable to the NYSDEC.

If you have questions or need additional information you may contact any of the following:

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Approved by:

10/9/98
Date

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