

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FOR FORMERLY USED SITES
FINDINGS AND DETERMINATION OF ELIGIBILITY
SCA CHEMICAL SERVICES (LAKE ONTARIO ORDNANCE WORKS)
LEWISTON/PORTER, NEW YORK PROJECT NO. C02NY002500

FINDINGS OF FACT

1. Former Air Force Plant 68 (AFP 68) is located near Model City, New York, on property now owned by SCA Chemical Services (SCA). This plant was a research and development facility which produced and tested high energy rocket fuel (dodecarbone) containing boron and hydrogen compounds. The research facility was operated by the Olin-Matheson Corporation from 1958 to 1960 under contracts with the Navy and Air Force. This property was leased by the Air Force from the Atomic Energy Commission (AEC), who had acquired the plant site as a portion of a larger tract from the former Lake Ontario Ordnance Works (LOOW). The LOOW consisted of a TNT production plant, the Northeast Chemical Warfare Depot, and the Manhattan Project District Offices all of which were established at the LOOW between 1943 and 1945. SCA currently operates a secure landfill for hazardous wastes on its property. The former disposal area for AFP 68 is situated just Northwest of the SCA secure landfill on SCA's property.

2. SCA has submitted a claim to the Department of Defense pursuant to section 9607(a) of the Comprehensive Environmental Recovery Compensation and Liability Act of 1980 (CERCLA). The claim does not precisely define the claimant's response costs, however, SCA stated that their costs as of the date of their claim, "far exceed \$50,000." SCA has also requested that the Department of Defense assume all financial responsibility for future investigative costs as well as the cost of removing such additional material as may become necessary to prevent or abate the release of hazardous wastes from the site.

SCA's claim was apparently prompted by the State of New York's notice to them reserving a right to pursue its own CERCLA claim against SCA, along with the Olin Corporation.

The New York Department of Environmental Conservation (NYDEC) identified three specific areas of concern at former AFP 68: (a) The "burn area", where it is believed that a large quantity of "off spec" rocket fuels were incinerated, (b) an adjacent 30-drum disposal site and (c) a nearby 300-drum disposal site. Waste by-products from the facility operation are believed to have included lithium chloride, boron, kerosene, methanol and potassium chloride.

The best available information to date indicates that the hazardous wastes of which SCA is complaining were placed on the sites in question by Olin employees in connection with their activities as the Air Force's and Navy's operating contractor for Air Force Plant No. 68. While it has been assumed by others that such action was undertaken during the process of decommissioning the plant strictly at the Government's direction and with the Contracting Officer's full knowledge and consent, there is no conclusive evidence which firmly establishes or disproves this assumption.

3. During 1941 and 1942, the Department of Army purchased or acquired, by eminent domain, approximately 7,500 acres of land in the towns of Porter and Lewiston, New York, to create the Lake Ontario Ordnance Works. Within these boundaries, an industrial area of about 2,500 acres was created and utilized for manufacturing TNT. This facility produced 41,656,000 pounds of TNT between October 1942 and September 1943. In 1946, the Army transferred 1,511.02 acres of the industrial area portion of LOOW (including the TNT manufacturing site) to the Atomic Energy Commission (AEC). In 1947, the Army transferred the remaining 989.80 acres of the industrial area to the War Assets Administration. In 1955, the AEC conveyed 967.84 acres of the 1,511.02 acres which had been obtained from the Army to the General Services Administration (GSA), which included the TNT plant site. In 1957, the GSA conveyed back to the Army a 309.71-acre parcel of the property previously transferred to it by the AEC (which did not include the TNT plant).
4. In 1964, the Army transferred ownership of 274.79 acres of the 309.71 acres received from the GSA in 1957 back to the GSA. In 1965, the GSA offered this plot, along with an adjoining plot of 564.74 acres (making a total of 839.53 acres) for sale to the public. This combined tract of land included the site of the old TNT manufacturing facility and was sold to the Fort Conti Corporation for a consideration of \$91,580.00. This property included the former Air Force Plant 68 site. The Fort Conti Corporation subsequently transferred ownership of the property (including the site in question) to the Pfohl family who apparently enjoyed sole ownership and control of Fort Conti Corporation property prior to its sale to SCA in 1976. None of the deeds associated with these transfers included any mention of the contamination of which SCA complained in its CERCLA claim. The SF 118 (Report of Excess) filled out by GSA is silent with respect to the alleged contamination.
5. SCA and the Olin Corporation have already undertaken certain cleanup efforts in response to a 1981 request to so act by the NYDEC. It is known that approximately 2,000 cubic yards of soil have already been removed from the "burn area" and that six drums of chemicals have been uncovered but then reburied at the site. Two of those drums were sampled and tested and found to contain lithium, boron compounds and hydrocarbons. The drums were reinterred with soil at an unmarked location. On May 6, 1982, the Olin Corporation informed the NYDEC of its belief that all contaminated material meriting removal from the site had already been removed. Olin denies responsibility for the six drums exhumed at the 30-drum site, claiming that they were placed there by other Government contractors, and they have also stated that the unsuccessful efforts to locate the suspected 300-drum cache confirms their belief that either such drums never existed or have already been removed.
6. A confirmation study has been conducted of this site by the Huntsville Division, U.S. Army Corps of Engineers to confirm or deny the existence of hazardous waste contamination in the soil and surface waters of properties associated with the operation and/or decommissioning of AFP 68. Geophysical surveys were conducted in an attempt to identify any locations with buried ferromagnetic objects and certain types of subsurface contaminants that may

exist. The specific site locations selected for investigation were chosen to address the New York Department of Environmental Conservation's three areas of concern: (a) the burn area, (b) adjacent 30-drum and, (c) 300-drum disposal sites. The study results are as follows:

a. In the suspected burn area, no geophysical evidence of buried metallic masses or subsurface plume migration of contaminants were detected. Analysis of soil from this area indicated the presence of boron compounds (178 to 281 mg/kg), lithium compounds (230 to 644 mg/kg), extractable organic compounds (0 to 514 mg/kg), extractable halogen (chlorine) compounds (0.37 to 1.35 mg/kg) and the possible presence of PCB's, pesticides and benzene. Potassium concentrations (841 to 1090 mg/kg) were also found. Standing surface water in the burn area contained boron compounds (22.2 to 22.5 mg/l), lithium compounds (25.7 to 27.8 mg/l), extractable organic compounds (400 to 643 mg/l), extractable chlorine compounds (0.8 to 2.0 mg/l), trichloroethylene (0 to 6.7 mg/l), and possibly toluene.

b. Within the northern site area excavated by Olin Corporation in 1981, magnetic measurements showed a large metal mass several times greater than background. Magnetic interference in this area made it difficult to gauge the precise amount present. This level of magnetic anomaly could indicate the presence of 20 to 40 drums. No subsurface plume migration was detected. Soil samples from this area contained extractable organic compounds (0 to 13.2 mg/kg), extractable chlorine compounds (0.2 to 0.5 mg/kg) and PCB's and benzene were possibly present. Boron concentrations were below the limit of measurement (9 mg/kg), lithium (18.8 to 20.6 mg/kg) and potassium (1080 to 1120 mg/kg) concentrations were present.

A small intermittent stream passes near the suspected "30 drum area" and the suspected burn area. Boron concentrations decreased in the downstream direction from 0.22 to 0.15 mg/l. Lithium levels were found to be less than 0.2 mg/l in all samples while potassium varied irregularly between 2.5 to 4.0 mg/l. This stream also contained extractable organic compounds (410 to 711 mg/l), extractable chlorine compounds (3.0 to 3.7 mg/l), and at the furthest downstream sampling point (offsite) trichloroethylene at 6.9 mg/l.

c. Two magnetic anomalies were found near the property southern site area also investigated by Olin by a series of exploratory trenches and borings. One magnetic anomaly was significant and could indicate the presence of 200 or more buried drums. The second anomaly was not as distinct and could be a small number of drums or simply scrap metal. Soil samples from this area yielded potassium levels (1920 to 2830 mg/kg) higher than other areas tested and extractable chlorine compounds (0.2 to 0.9 mg/kg). Extractable organic compounds were too low to measure; volatile compounds were absent, and one sample indicated trace amounts of toluene.

7. The environmental hazard involved here has been stated by the State of New York to pose a serious threat to public health and safety and it has listed these sites as high priority items on its Superfund list. It was not the intent of the confirmation study to determine if this is true or not. Two sites were identified as potential disposal areas.

SCA currently operates a hazardous waste landfill on its adjoining property with the approval of New York State. Both the former AFP and SCA landfill sites have natural soil conditions lending themselves to this use. There is no evidence of subsurface migration from this site though low level contaminant release by surface runoff is evident. This drainage, however, is a function of both past and present activities at the entire industrial site area.

Further DOD response to this proposed project will involve an agreement with the New York Department of Environmental Conservation, SCA, and the Olin-Matheson Corporation prior to undertaking any further action such as the development of a corrective action plan or further chemical investigation of the site.

DETERMINATION

Based on the foregoing findings of fact, it is determined that prior DoD ownership and utilization of the site as described above, may have contributed to the present contamination conditions of the site. However, it has not yet been determined if DoD activities are solely or jointly responsible for the ground water and other contamination at this site. The confirmation study did identify certain chemical contamination that could be associated with previous DoD activities. Therefore, it is recommended that DoD conduct a Remedial Investigation/Feasibility Study (RI/FS) covering the areas of suspected DoD responsibility, in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and that the necessity for any additional DoD remedial action be determined upon completion of the RI/FS. Based on the completed RI/FS, negotiation of an agreement with the New York State Department of Environmental Conservation is recommended, should DoD responsibility be evident. The agreement would set forth responsibilities in a corrective action plan.

15 Jul 86

Date



LLOYD A. DUSCHA, P.E.
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2. A claim has been submitted to the Department of Defense pursuant to section 9607(a) of the Comprehensive Environmental Recovery Compensation and Liability Act of 1980 (CERCLA) by SCA Chemical Services, Inc. (SCA). The claim does not precisely define the claimant's response costs, however SCA has stated that their costs, "far exceed \$50,000 to date." SCA has also requested that the Department of Defense assume financial responsibility for all future investigative costs as well as the cost of removing such additional material as necessary to prevent or abate a release of hazardous wastes from the site.

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The best available information to date indicates that the hazardous wastes complained of by SCA were placed on the sites in question by employees of the Olin Corporation as part of their activities as the Air Force's and Navy's operating contractor for Air Force Plant No. 68. While it has been assumed that such action was undertaken in the process of decommissioning and dismantling Air Force Plant No. 68, strictly at the direction or with the full knowledge and consent of the Air Force, there is no conclusive evidence available to either firmly establish or disapprove that matter.

3. During 1941 and 1942, the Department of Army purchased or acquired, by eminent domain, approximately 7,500 acres of land in the towns of Porter and Lewiston, New York, to create the Lake Ontario Ordnance Work (LOOW). Within these boundaries, an industrial area of about 2,500 acres was created and utilized for manufacturing TNT. This facility produced 41,656,000 pounds of TNT between October 1942 and September 1943. In 1946, the Army transferred 1511.02 acres of the industrial area portion of LOOW (inclusive of the TNT manufacturing site) to the Atomic Energy Commission (AEC). In 1947, the Army transferred the remaining 989.80 acres of the industrial area to the War Assets Administration. In 1955, the AEC conveyed 967.84 acres out of the 1511.02 acres which had been obtained from the Army to the General Services Administration (GSA), which included the TNT plant site. In 1957, the GSA conveyed back to the Army a 309.71 acre parcel of the property previously transferred to it by the AEC (which did not include the TNT plant).

4. In 1964, the Army transferred ownership of 274.79 acres out of the 309.71 acres received from the GSA in 1957 back to the GSA. In 1965, the GSA offered this plot, along with an adjoining plot of 564.74 acres (making a total of 839.53 acres) for sale to the public. This combined tract of land included the site of the old TNT manufacturing facility and was sold to the Ft. Conti Corporation for a consideration of \$91,580.00

The "burn area" and the two drum disposal sites were obtained by SCA via a single deed executed by the Pfohls Family in 1976. This parcel was a part of a larger parcel of land which had been deeded by the GSA to the Fort Conti Corporation after a 1965 surplus sale by the Government. This property was inclusive of the former Air Force Plant 68 site. The Fort Conti Corporation subsequently transferred ownership of the property (including the site in question) to the Pfohl family, who apparently enjoyed sole ownership and control of Fort Conti, prior to their sale to SCA. None of the deeds associated with these transfers included any mention of the contamination complained of in SCA's CERCLA claim. SF 118 (Report of Excess) to GSA is silent respecting this alleged contamination.

5. SCA and the Olin Corporation have already undertaken certain cleanup efforts in response to a 1981 request by the NYDEC. It is known that approximately 2,000 cubic yards of soil has already been removed from the "burn area" and that six drums of chemicals were uncovered and then reburied at the site. Two of the drums were sampled and tested and found to contain lithium, boron compounds and organic hydro carbins. This drum site was recovered with soil and unmarked. On May 6, 1982, the Olin Corporation informed the NYDEC of its belief that all contaminated material meriting removal from the site had already been removed. Olin denies responsibility for the six drums exumed at the 30-drum site, claiming that they were placed there by other Government contractors and has also stated that the unsuccessful efforts to locate the suspected 300-drum cache confirms their position that such drums either never existed or have already been removed by others.

6. A confirmation study has been conducted of this site by the Huntsville Division, Corps of Engineers to determine the existence or confirm the nonexistence of hazardous waste contamination in soil and surface waters on properties associated with the operation and/or decommissioning of AFP 68. Geophysical surveys were conducted to identify any locations with buried ferromagnetic objects or certain types of subsurface contaminates. The specific site locations for investigation were to address the New York Department

of Environmental Conservation's three areas of concern: a) the burn area, b) adjacent 30 drum and, c) 300 drum disposal site. The study results are as follows:

a. Within the northern site area excavated by Olin Corporation in 1981, magnetic measurements showed up as a large metal mass several times greater than background. Magnetic interference in this area made it difficult to gauge the precise amount present. This level of magnetic anomaly could indicate the presence of 20 to 40 drums. No plume migration was detected.

b. Two magnetic anomalies were found near the property southern site area also investigated by Olin by a series of exploratory trenches and borings. One magnetic anomaly was significant and could indicate the presence of 200 or more buried drums. The second anomaly was not as distinct and could be a small number of drums or simply scrap metal.

c. The burn pit area water and composite soil samples all contained boron, lithium, and potassium. One burn pit soil sample contained PCB contamination and (an other) had pesticide indicators present.

d. All surface water samples from drainage and standing on-site contained boron and potassium. One soil sample adjacent to the burn pit area also contained PCB.

The environmental hazard involved here has been considered by the State of New York to pose a serious threat to public health and safety. The NYDEC has listed these sites as high priority items on its Superfund list. It was not the intent of the confirmation study to determine if this is true or not. Adjoining property is currently being used by SCA with the approval of New York as a hazardous waste landfill.

Both areas have natural soil conditions that amend themselves to this use. There is no evidence to date of subsurface plume migration from this site though contaminate release by surface runoff is evident. This drainage, however, is affected by the entire industrial site area, past and present.

Further DOD response to this proposed project will necessarily involve an agreement with the New York Department of Environmental Conservation, SCA, and the Olin-Mathission Corporation prior to undertaking any further action such as the development of a corrective action plan or further analysis investigation of the site.

DETERMINATION

Based on the foregoing findings of fact, the site as described above has been determined to be a formerly-used DOD property. Moreover, it is determined that an environmental restoration project, should it be directed, is an appropriate undertaking within the purview of the Public Law 98-473, Continuing Appropriation, 1985 (Conference Report (HR 98-1159)), for the reasons stated above.

Date

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