

General *Sandra Martin / File*



Department of Energy
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

November 7, 2003

Dr. Gedi Cibas
New Mexico Environment Department
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, NM 87502-0110

Dear Dr. Cibas:

The U. S. Department of Energy (DOE), National Nuclear Security Administration (NNSA) issued a Finding of No Significant Impact (FONSI) on November 3, 2003, for the proposed action to construct and operate office, laboratories and shops within the Two-Mile Mesa Complex, located within Technical Areas 22, 6 and 40, where operations would be consolidated from other locations at Los Alamos National Laboratory (LANL). This proposed project is the subject of DOE/EA-1447. This National Environmental Policy Act (NEPA) finding was based on the consideration that there are no significant impacts to the environment or to human health as a result of implementation of the proposed project at LANL.

Copies of the EA, FONSI and a Mitigation Action Plan are enclosed. Copies of these documents are also available for review at the DOE Public Reading Room at the Los Alamos Outreach Center, 1619 Central Avenue, Los Alamos, NM and at the Zimmerman Library, University of New Mexico, Albuquerque, NM.

If you have any questions about our NEPA compliance program or this project, or if you would like to request additional copies of the EA, FONSI or Mitigation Action Plan, please contact me at (505) 667-8690 or at the following e-mail site: ewithers@doeal.gov. I may also be reached by writing to 528 35th Street, Los Alamos, NM 87544.

Sincerely,

for David L. Barber

Elizabeth R. Withers
NEPA Compliance Officer
Office of Facility Operations

OFO:8VL-063

Enclosure



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Department of Energy
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

Dr. Gedi Cibas
Environmental Impact Review Coordinator
State of New Mexico
Environment Department
Harold Runnels Building
1190 St. Francis Drive
Santa Fe, NM 87502-6110

Dear Dr. Cibas:

Re: *NMED File No. 1768ER, Comments concerning the Predecisional Draft Environmental Assessment for the Proposed Consolidation of Certain Dynamic Experimentation Activities at the Two-Mile Mesa Complex, Los Alamos National Laboratory, Los Alamos, New Mexico, DOE/EA-144.*

The U. S. Department of Energy (DOE), National Nuclear Security Administration (NNSA) issued a Finding of No Significant Impact (FONSI) on November 3, 2003, for the proposal to consolidate certain Dynamic Experimentation activities at Los Alamos National Laboratory (LANL), subject of the above referenced environmental assessment (EA). Copies of the FONSI, Mitigation Action Plan, and the final EA have been sent to you under separate cover. This National Environmental Policy Act (NEPA) finding was based on the consideration that there are no significant impacts to the environment or to human health as a result of implementation of the proposed project at LANL.

I received your letter dated September 17, 2003, in which you provided comments on the subject EA. We appreciate your participation in our NEPA compliance process and your taking the time to provide us with your comments on the draft document. The following paragraphs provide NNSA's responses to your comments according to their numbered presentation in your September 17th letter.

DEPARTMENT OF ENERGY OVERSITE BUREAU

Comment 1. *"This project deserves the thoughtfulness and specific mitigation features built into the Environmental Impact Statement process. It would be surprising that an undertaking of this magnitude would result in no environmental impact. Arguments made that there will be no adverse impacts on specific environmental media are consistently inadequate."*

Response: As stated in Chapter 1 of the EA, the purpose of preparing an EA is to provide Federal decision makers with sufficient evidence and analysis to determine

whether to prepare an environmental impact statement (EIS) or to issue a Finding of No Significant Impact (FONSI). An EA is not required to provide the same level of analyses of impacts as an EIS because the purposes for preparing the two documents are not identical. NNSA acknowledges that it would be unlikely that implementation of the Proposed Action would result in no environmental effects; where effects to natural and cultural resources were identified as being likely to occur as part of the EA analyses, the effects were identified in the EA as adverse (such as the potential for adverse effect to certain historic structures), or beneficial (such as short term socioeconomic effects during the construction phase); where no potential effect to a resource area has been identified, that information is provided along with the rationale for such a statement (such as the lack of effect to waste management operations at LANL because no new waste treatment, storage or disposal facilities would be required). In some cases, potential effects from implementing the Proposed Action could result in both positive and negative effects to a single resource area (such as would result from the removal of some areas of asphalt at Technical Area (TA) 22 and the construction of other asphalt-covered parking areas in that area with regard to surface water runoff quantities and surface water infiltration), and this was also noted in the EA. NNSA has endeavored to present factual information in the EA for the decision maker, stakeholders and public to use in determining the significance of the potential effects to the LANL environment that could result from implementing the Proposed Action. NNSA has not made the assertion that there would be no impacts expected from implementing the Proposed Action; NNSA is of the opinion that the rationale provided in the EA for no anticipated effects to certain resource areas is appropriate and adequate.

Comment 2. *“This document is riddled with the conditional tense. Conditional statements sound irresolute.”*

Response: NNSA prefers the use of the conditional tense in its NEPA compliance documents. This is intended to underscore the fact that draft EAs are predecisional documents and should not be written in a style indicative of a decision having already been made. In an effort to improve the quality of NEPA documents and to facilitate the preparation of NEPA documents across the DOE complex by a wide variety of preparation teams, DOE issued internal guidance on the preparation of the NEPA documents in 1993 and plans to update this guidance soon. A copy of the 1993 DOE guidance (Recommendations for the Preparation of Environmental Assessment and Environmental Impact Statements) is publicly available on the World Wide Web at: http://tis.eh.doe.gov/nepa/tools/guidance/recom/toc_rec.htm#toc, and I can provide you with a hard copy of this document if you would like to receive one.

Comment 3. *“The final configuration of the Two-Mile Mesa complex should mitigate undesirable storm water impacts on affected canyons. This project should be designed with storm water runoff controls that utilize detention or retention of storm water on the mesa tops. ...These types of designs would reduce the “first flush” contaminant loading from the parking lots and roof drains and reduce the instantaneous discharge of storm water to the canyon systems. This will result in a reduction of both new contaminant discharge to the canyon system and disturbance and re-transport of contaminants already deposited to soil bodies and sediments within the canyon system.”*

Response: NNSA agrees with the State's opinion that the final configuration of the Two-Mile Mesa Complex should mitigate undesirable storm water impacts on affected canyons. Chapter 2.1.1, Construction, of the EA identifies that roof drains would typically collect snowmelt and rainwater from the buildings and this water would be channeled to appropriate release points, such as landscaped areas. Storm water runoff systems would be designed to minimize soil erosion. Landscaping would be designed to maximize the use of native species and storm water collection practices so as to minimize the use of potable water. All of the newly constructed buildings would be located minimally about 50 feet from a canyon edge; this fact, combined with the use of Best Management Practices prescribed in the Storm Water Pollution Prevention Plan, and the direction of storm water runoff primarily into landscaped areas should adequately serve to minimize the amount of surface water runoff into the upper portions of Pajarito and Two Mile Canyons. Neither of these canyons is known or suspected to have areas of concern (AOC) with regard to environmental contamination located in the vicinity of the Two Mile Mesa Complex, so no transport of contaminants down stream is expected to result from implementing the Proposed Action.

Comment 4. *"At least six of the proposed building sites have potential release sites (PRSs) associated with them. If a PRS will be disturbed, the Hazardous Waste Bureau (HWB) must be notified prior to any disturbance, and all remedial actions performed to allow for construction must be well documented and coordinated with the HWB."*

Response: As identified in Chapter 2.1 of the EA, PRSs could be disturbed by necessary construction or demolition activities. LANL's ER Project staff is responsible for assuring that appropriate associated State notification is made if PRSs must be disturbed.

Comment 5. *"Several of the building specific details use the language, "No known PRSs are present within the proposed structure footprint at that construction site." It is necessary to include information about whether the construction processes and supporting structures (such as buried cables, plumbing, parking lots) will disturb PRSs. The partial information provided may give the false impression that the PRSs are not an issue for these buildings, when they may be."*

Response: As identified in the response to Comment 4, the EA recognizes that general site construction activities could result in the need to disturb PRSs. As pointed out, information was also included in the EA for each of the proposed buildings regarding the location of PRSs within the identified footprint location.

HAZARDOUS WASTE BUREAU

Comment 1. *"The Department of Energy (DOE) and the University of California (UC) must... close any Resource Conservation and Recovery Act (RCRA) affected interim status and/or permitted units following proper procedures and regulations including but not limited to, public participation and permit modification requirements. DOE and UC should provide a map(s) illustrating the locations of all interim status and/or permitted units impacted or potentially impacted by the proposed construction and decontamination and demolition (D&D) activities."*

Response: NNSA acknowledges the State's regulatory requirements with regards to RCRA compliance issues. NNSA and UC will follow proper procedures and regulations regarding necessary RCRA-regulated waste management units. Maps of the units will be provided to the State in the course of that compliance process, as needed.

Comment 2. *"Prior to construction of the new Two-Mile Mesa Complex and D&D activities at the current DX Division structures, DOE and UC must investigate and remediate any impacted solid waste management units (SWMUs) and areas of concern (AOCs) potentially impacted by D&D activities following proper procedures and regulatory requirements. DOE and UC should provide a map(s) illustrating the locations of all SWMUs and AOCs impacted or potentially impacted by the proposed construction and D&D activities."*

Response: As noted in the earlier response to the Oversight Bureau's comment 4, LANL's ER Project staff is responsible for assuring that appropriate associated State notification is made if PRSs must be disturbed. They are additionally responsible for appropriate compliance actions regarding SWMUs and AOCs. Maps of SWMU and AOCs will be provided to the State as necessary during the appropriate compliance process.

Comment 3. *"DOE and UC should discuss in detail the changes (if any) in waste generation (e.g., volumes of low-level and mixed low-level and hazardous wastes). In addition, discuss the physical state(s) (e.g., liquid, solid, gas) of each waste stream and the expected percentage of each; list the constituents/radionuclides expected to be present in the various waste streams; and identify expected concentrations and activities in each waste stream. Include how the generated waste(s) was or will be characterized, stored and disposed. DOE and UC should include assumptions and calculations for all estimates. It is difficult for the public and other stakeholders to scrutinize DOE and UC recommendations without this information."*

Response: Changes to waste generation rates would primarily result from construction activities and demolition activities associated with the Proposed Action, as operations would be expected to generate about the same levels of waste or slightly less than those projected for the Expanded Operations Alternative in the LANL Site-Wide EIS (SWEIS). The EA identifies anticipated solid waste sources by building, waste quantities, traffic effects and disposal location(s) for the construction activities in Section 3.2.1.2, Table 5. Information about anticipated waste types, sources, quantities, traffic effects and disposal sites for demolition waste is provided in Table 6 of that same section of the EA. Information about the LANL waste management system is provided in the EA's section 3.2.1.1. Waste generated through the implementation of the proposed action would be dispositioned in accordance with LANL waste management systems, as appropriate. Assumptions and calculations that support the bounding waste generation numbers used in the effects analyses of the EA are included in the administrative record for the EA. In keeping with the Council on Environmental Quality's regulations implementing NEPA and their statement therein regarding the reduction of paperwork through the preparation of analytical rather than encyclopedic NEPA documents, detailed waste calculation information has not been included in the EA.

Comment 4. *“DOE and UC should discuss in detail the expected impacts to air emissions. Emission volume changes, constituents and associated concentrations and activities should be discussed in detail. DOE and UC should include assumptions and calculations for all estimates. It is difficult for the public and other stakeholders to scrutinize DOE and UC conclusions regarding environmental impacts without this information.”*

Response: Information regarding air emissions and air quality effects is provided in the EA in section 3.2.2.1 and 3.2.2.2. As already stated in the NNSA’s response to Comment 3, the details regarding assumptions and calculations is a part of the administrative record for the EA and is not included as part of the EA.

Comment 5. *“DOE and UC should provide a list of all facility operating permits that will/may need to be obtained (e.g., Clean Water Act, Clean Air Act, New Mexico Water Quality Control Commission, RCRA) as a result of the proposed consolidation and construction, and the timetable for such modifications/additions, including the changes/modifications that are anticipated.”*

Response: NNSA and the UC will obtain new or modify existing permits as necessary during the implementation of the Proposed Action. This information would largely be extraneous to the analyses of environmental effects provided in the EA; where permit or regulatory compliance issues are pertinent to the EA analyses, this information is included in the EA (such as the discussion of the use of Best Management Practices in section 3.2.7.2 of the EA as required by the permit program of the National Pollutant Discharge Elimination System authorized under the Clean Water Act).

Comment 6. *“DOE and UC should clarify if the proposed site, located at TA-6, is suitable due to hazard radii associated with firing sites located throughout the high explosives corridor (bounded on the north and south by Pajarito Road and New Mexico State Route 4). Also, clarify if access to the proposed site, at TA-6, would be hindered or limited by firing site activities.”*

Response: As a point of clarification, the Proposed Action construction site will span portions of TA-6 and TA-22 along their common boundary. Part of the planning process that has gone into the preparation of the LANL Site Plan is the consideration of areas available for new construction. This planning process considers a wide variety of natural, cultural and LANL operational constraints. Areas identified for new construction for occupied buildings are suitable for occupation with regard to the hazard radii associated with firing sites and other potential site physical hazards. In this case, the proposed offices buildings and other occupied structures would be sited next to existing occupied buildings and structures at the Two Mile Mesa Complex, while the Classified High Explosives Storage Building, the new Detonator Qualification Facility, the new Contained Firing Facility and the new Gas Gun Facility buildings would be located next to similar existing structures or at appropriate distances from the occupied buildings as necessary for the hazards associated with their use. Access through TA-6 or through TA-16 would not in either case be hindered or limited by planned firing site activities associated with implementing the Proposed Action.

Comment 7. *“Once slated for D&D activities, DOE and UC should identify buildings such as magazines, solvent or other storage, firing sites/points and other buildings that may have managed waste and need to place those structures on DOE and UC’s RCRA operating permit (Hazardous and Solid Waste Amendments [HSWA] module).”*

Response: NNSA acknowledges the State’s comment regarding the addition of facilities slated for D&D to the HSWA module of LANL’s RCRA operating permit, as necessary.

Comment 8. *“DOE and UC should provide the assumptions used to calculate and the calculations used to estimate the quantities of waste generated during construction and D&D activities for each site. DOE and UC should also describe how the waste generated during these activities will be characterized.”*

Response: Please see the earlier response to Comment 3.

Comment 9. *“DOE and UC should conduct a more comprehensive environmental impact statement rather the submitted environmental assessment for this proposed change to the facility as it appears to alter operations substantially.”*

Response: As stated in the EA, the Proposed Action would consolidate operations to the Two Mile Mesa Complex from their existing locations into new offices, laboratories, firing facilities and shops, and would remove or demolish most of the vacated structures that are no longer needed. The structures to be vacated by the moving operations are located within several of LANL’s TAs. Operations would be expected to continue in their new Two Mile Mesa Complex locations in the same manner as under the Expanded Operations Alternative analyzed in the LANL SWEIS. To that end, the operations, which have been analyzed in an EIS analysis, would be unaltered. The EA focuses then primarily on the changes to the TA-6 and TA-22 environment that could occur if new buildings and structures were constructed therein, and to the other TAs where existing structures would be demolished. The purpose of the EA, as already stated, is to determine the need for an EIS or whether the NNSA decision maker should issue a FONSI. In this case, the NNSA decision maker found that, based on the EA analyses, an EIS was not warranted and has issued a FONSI.

Comment 10. *“Section 2.1.1: Construction, page 16; Footnote 4 indicates that the definition of a solid waste management unit does not include “passive leakage or one-time spills from production areas and units in which wastes have not been managed (e.g., product storage areas).” This is not the definition of solid waste management unit identified in DOE and UC’s RCRA operating permit (Hazardous and Solid Waste Amendments [HSWA] module).”*

Response: The reference for the definition of a solid waste management unit used in the EA, namely, the Environmental Restoration (ER) Project Glossary, is identified in the text of Footnote 4. NNSA agrees that this is not the same definition that appears in the RCRA operating permit for LANL.

Comment 11. *“Section 2.1.1: Construction; ...traces of north-south trending faults with 10 feet of displacement are identified in Pajarito Canyon directly south of the proposed office buildings, the Shock and Detonation Physics Building, the Collaborative Energetics Research Laboratory, the Electronic Diagnostic Facility, the High Bay*

Laboratory, and the Characterization of Highly Energetic Materials building as well as Contained Firing Facility (along the trace of another identified fault) and support structures. As indicted in the text (page 49), the UC Seismic Hazards Program recommends "siting new facilities over the trace of a potentially active fault should be avoided" and therefore NMED recommends that other locations should be considered for the proposed building[s]. If hazardous waste treatment, storage or disposal is planned to occur at the proposed Two-Mile Mesa Complex, DOE and UC must follow 40 CFR 264.18 requirements for seismic considerations."

Response: NNSA notes the State's recommendation regarding the consideration of another location within LANL for the Proposed Action. However, locating these functions at some other LANL site away from the Two Mile Mesa Complex would not lend itself to achieving a high level of operational efficiency possible with the consolidation of related activities, and would not, therefore, meet the NNSA's need for action identified in Chapter 1 of the EA. NNSA acknowledges the need to follow RCRA requirements for location standards as regards hazardous waste treatment, storage and disposal facilities for such facilities.

Comment 12. *"Section 3.2.7.1: Water Quality-Affected Environment; DOE and UC should identify which contaminants (e.g., metals, high explosives and radionuclides) and the concentrations and activities have been identified in surface water and groundwater in the areas affected by the proposed construction and D&D activities. A labeled map should be provided illustrating the locations of the contaminant detections."*

Response: Section 3.2.7 of the EA includes a discussion of the general LANL setting with regard to surface water and ground water quality that includes TA-22 and TA-6 to the extent that specific information is known. Very little ground water information is available for the Two-Mile Mesa Complex area. As stated in Section 3.2.7.1 of the EA, the Proposed Action would not be expected to affect either surface water or ground water qualities at LANL. No new outfalls, wastewater or hazardous waste streams would be created by implementing the Proposed Action; soil erosion at the construction sites would be minimal, storm water would be directed into landscaped areas, and best management practices would be implemented to protect surface and ground water quality; the use of potable water, sanitary sewage production would be essentially static. A map of the locations of surface and groundwater contaminant detections at LANL has not been included in the EA as this would be extraneous information.

Comment 13. *"Section 3.2.7.1 Water Quality-Affected Environment; DOE and UC should discuss in more detail the known extent and possibility of perched groundwater beneath proposed Two-Mile Mesa Complex. Include discussions of known contamination. For example, corrective action activities at TA-16 have identified contaminants in groundwater samples and tuff 100 to 150 feet below the mesa top. In addition, water collected from springs, discharging from the Bandelier Tuff are impacted by DOE and UC operations and activities."*

Response: Please see response to Comment 12.

Comment 14. *"Section 3.2.8.2 Human Health-Proposed Action; DOE and UC describe copper as being "nontoxic" when in fact copper does exhibit noncarcinogenic"*

toxicological affects according to the United States Environmental Protection Agency and the Agency for Toxic Substances and Disease Registry. DOE and UC should correct this oversight and check the remaining document for similar errors.”

Response: The final EA has been changed to correct this information as recommended.

Comment 15. *“Section 3.2.9.1 Environmental Restoration-Affected Environment; Table 8 lists various SWMUs and AOCs. At this time only sites C-06-006, C-06-016 and C-06-020 have been given a no further action determination. The New Mexico Environment Department has not concurred at this time that the remaining SWMUs and AOCs listed are suitable for a determination of no further action and may require additional investigation and remediation.”*

Response: The NNSA acknowledges that the State has not concurred with the NNSA’s determination of no further action for all of the listed SWMUs identified within Table 8.

Comment 16. *“Section 3.2.12.1 Biological Resources-Affected Environment; DOE and UC should provide a list of all threatened and endangered species and a map(s) illustrating the sensitive habitats for both flora and fauna within the potentially impacted areas.”*

Response: The LANL SWEIS contains a full list of protected and sensitive species at LANL. As identified in Section 3.2.12.1, only potential Mexican spotted owl habitat is of potential concern with regard to implementing the Proposed Action. As proposed construction would occur within an already developed area, no effects to sensitive species or their critical habitat would be expected to occur due to the Proposed Action. Demolition activities would proceed according to criteria established in the LANL Threatened and Endangered Species Habitat Management Plan, which includes appropriate timing and activity constraints to LANL actions. A map illustrating sensitive habitats at LANL will not be provided in NEPA documents; this information is both extraneous to the analyses, encyclopedic in nature, and may result in a violation of the Endangered Species Act as it could be used by members of the public to the detriment of sensitive habitat areas and to the detriment of individuals of the various species protected under that law.

Comment 17. *“Section 3.2.12.1 Biological Resources-Affected Environment; DOE and UC should discuss the loss of habitat due to the new construction. DOE and UC should also cite information (if available) regarding current facility operational impacts (e.g., air emissions, contaminated soils/sediments from firing sites, and waste water discharges) on the overall ecological health (e.g., affected terrestrial and aquatic receptors; impacts to species populations, diversity, mutagenic affects, etc.) of the system. If no specific ecological information is available regarding current DX Division operations, DOE and UC should identify the impacts from the current/historic releases prior construction of the proposed Two-Mile Mesa Complex.”*

Response: Additional text has been added to the final EA that identifies both the lack of affect to sensitive species and to their critical habitat, as well as the potential for temporary displacement of small mammals and birds from implementing the Proposed Action. The Two Mile Mesa Complex area is a developed area that has been disturbed by both pre-LANL occupation by homesteaders and post-LANL creation activities; the

areas that might be effected by the construction of the Anchor Ranch Access Road (under either Option 1 or 2 alignments) could result in the removal of a few live trees (although with the continued bark-beetle infestation this is may not long be the case). The Cerro Grande Fire burned much of the area that could be disturbed if road alignment Option 2 were chosen. Tree removal and thinning has occurred in the Two Mile Mesa Area since the Cerro Grande Fire, especially around roads, utility lines and facilities. LANL operational impacts were discussed and analyzed in the 1999 LANL SWEIS; DOE's determination of affect with regard to both sensitive and non-sensitive plant and animal species is that LANL operations may affect but are not likely to adversely affect these species or their critical habitat.

Comment 18. *“Section 3.2.13.1 Floodplains and Wetlands; DOE and UC should calculate the volume of additional runoff created and delivered to the canyons as a result of construction activities and new structures (including parking lots). Increased runoff may impact wetland areas located down gradient of the storm water discharge and may also increase erosion of contaminated sediments in the affected canyon systems, SWMUs and/or AOCs. DOE and UC should implement and maintain management practices that reduce or eliminate contaminant migration due to increased runoff.”*

Response: As the volume of additional runoff delivered to the Two Mile Mesa Complex area canyons is expected to be minimal, it is not expected that there would be an impact to any wetland area located down gradient. There are no known contaminated sediments in the affected canyon system, nor are there any SWMUs or AOCs located above the storm water retention structure built after the Cerro Grande Fire and located east of the confluence of Two Mile and Pajarito Canyons. The retention structure is located about one and one-half miles east of the Two Mile Mesa Complex area. Effects from enhanced runoff originating in upper Pajarito Plateau areas burned by the Cerro Grande Fire to Two Mile and Pajarito Canyons will likely continue over about the next 6 to 10 years; any potential effects to those canyons from construction at the Two Mile Mesa Complex would be expected to be extremely minor by comparison. When the retention structure is removed, any sediment collected behind the structure would also be removed.

Comment 19. *“Section 5.0: Cumulative Effects; This section identifies the Van de Graff accelerator located at TA-3 as a building under consideration for D&D activities; however, SWMUs and AOCs associated with this structure are not listed on Table 8. In addition, the D&D of the Van de Graff accelerator does not appear to be included in the estimates of waste generation or identified on Table 7. DOE and UC should revise the tables and text to correct the error(s).”*

Response: Information about the Van de Graff accelerator was not included in Table 7 or 8 as the demolition of that facility is not connected to the Proposed Action and those tables identify only information associated with that proposal. The cumulative effects discussion is intended to place the Proposed Action into a larger, LANL site effects context; therefore the discussion includes other, separate actions that could effect the LANL environment in the same or similar fashion as the Proposed Action so that the decision maker can understand the overall additive effects.

Dr. Gedi Cibas

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If you have any questions about our responses to your comments, or about the NNSA's Los Alamos Site Office NEPA compliance program, please call me at (505) 667-8690.

Sincerely,

for David L. Barker

Elizabeth R. Withers
NEPA Compliance Officer
Office of Facility Operations

OFO:8EW-028