

NAVFACINST 11010.45

REGIONAL PLANNING INSTRUCTION
SITE APPROVAL PROCESS



May 2001

Table of Contents

1.0 Overview 1

2.0 Projects Requiring Site Approval 1

3.0 Conformance With the Land Use Plan.....2

4.0 Reviewing Authorities for Safety Certifications2

5.0 EFD/EFA/HQMC Responsibilities2

6.0 Required Documentation for Site Approval Requests 10

Appendices:

- A. NAVFAC Form 11010/31 (REV 5-2001), Request for Project Site Approval/Explosives Safety Certification, Part I
- B. NAVFAC Form 11010/31 (REV 5-2001), Request for Project Site Approval/Explosives Safety Certification, Part II, Division A-Explosives Safety
- C. NAVFAC Form 11010/31 (REV 5-2001), Request for Project Site Approval/Explosives Safety Certification, Part II, Division B-Airfield Safety
- D. NAVFAC Form 11010/31 (REV 5-2001), Request for Project Site Approval/Explosives Safety Certification, Part II, Division C-Electromagnetic Safety

1.0 OVERVIEW

This section provides guidance on submitting a site approval request. Site approval requests are submitted on NAVFAC Form 11010/31, "Request for Project Site Approval." This two-part form provides the information about the project that will allow others to evaluate the project site. The first part of the form asks for general information on the type of project and includes an area for the various reviews and approvals required in the process. In addition to this form, graphic information such as plans and maps, showing the proposed project location in relation to the activity's land use plan, existing facilities, and appropriate siting constraints are also required.

2.0 PROJECTS REQUIRING SITE APPROVAL

Site approval is required for all Navy projects and non-Navy projects sited on Navy-controlled land holdings regardless of funding source for the following situations:

- Any project site that will have explosives safety criteria implications associated with ammunitions and explosives.
- Any project that affects or is affected by airfield safety criteria.
- Any project that creates or is proposed to be in an area of electromagnetic illumination or involves electromagnetic transmission.
- Any project that proposes changing the use of a facility.
- Any project that changes or has the potential to change the land use or physical layout of an area.

Projects having explosives safety, airfield safety, or electromagnetic safety implications will require a "Safety Certification" by specific commands that have been assigned these responsibilities. More information to follow.

Recognize that many projects will have safety criteria considerations in more than one area. For example, a project that proposes construction of a new transmitting antenna at an air station may have implications for airfield safety (from the location of the antenna), as well as for the effects of electromagnetic radiation (EMR) emanating from the transmitter on people, fuels, ammunition, and EMR-sensitive equipment.

2.1 WHEN TO REQUEST PROJECT SITE APPROVAL

Site approvals requests for Military Construction projects or Special Projects that will require a "Safety Certification" should be initiated when the activity/region develops an Activity 1391+ (MCON) or DD Form 1391 (Special Project) for the project.

2.2 LIFE OF A SITE APPROVAL

Site approvals are granted based on the conditions and circumstances shown in the site approval request. The site approval becomes invalid if any of these conditions change. Approvals become invalid if the project scope or location is altered in any manner from the information on which the safety certification was granted. Explosive safety related site approvals granted under the Safety Assessment for Explosives Risk (SAFER) (discussed later in this topic) must be revalidated every five years.

3.0 CONFORMANCE WITH THE LAND USE PLAN

The best place to start in selecting a site for a project is the Land Use Plan included in the Regional Shore Infrastructure Plan (RSIP). The Land Use Plan has synthesized the myriad complex issues associated with land use planning. The plan describes planning constraints, proposed land use, and includes summaries of the facilities requirements, traffic, real estate, and mobilization plans. The site selected should be in conformance with the Land Use Plan. However, if there are overriding considerations that preclude siting consistent with the plan, document that information in the request for site approval.

4.0 REVIEWING AUTHORITIES FOR SAFETY CERTIFICATIONS

One of the important elements of the site approval process is the evaluation of the proposed project with respect to safety criteria. The EFD/EFA/HQMC cannot issue the site approval without certification from the appropriate command. Depending on the nature and proposed site of a project, it may require more than one safety certification. The CNO has assigned the responsibility for managing specific safety programs to the Naval Sea Systems Command (NAVSEA) (this responsibility has been delegated to the Naval Ordnance Safety and Security Activity (NOSSA), Indian Head, Maryland) for explosives safety (including Hazards of Electromagnetic Radiation to Ordnance (HERO)), the Naval Air Systems Command (NAVAIRSYSCOM) for airfield safety, and the Space and Naval Warfare Systems Command (SPAWARSYSCOM) for the electromagnetic interference radiation safety program (except HERO).

It may be appropriate to have discussions with the reviewing authorities prior to submission of the site approval request so that site changes or other mitigating features may be included.

5.0 EFD/EFA/HQMC RESPONSIBILITIES

The EFD/EFA is the key player in the site approval process. Although the EFD/EFA has authority to approve all site approval requests, some EFDs/EFAs have delegated authority for certain types of site approval requests to other commands. Check with the appropriate EFD/EFA for specific policy. Headquarters, Marine Corps has site approval authority for Marine Corps activities in accordance with MCO 8020.10.

The EFD/EFA/HQMC reviews each site approval request for the following:

- Compatibility with the RSIP.
- Conformance to sound land planning principles and practices.
- Operational and functional relationships relative to existing and planned facilities.
- Safety criteria.

Those projects with safety implications require a Safety Certification by the commands that have been assigned the responsibility for overseeing specific safety areas. Before forwarding these requests for site approval to the these commands, the EFD/EFA/HQMC will review the package submitted by the activity/region to make sure that it is correct and complete.

5.1 SITE APPROVAL REQUESTS WITH EXPLOSIVES SAFETY IMPLICATIONS

The primary resource for siting projects with explosives safety implications is the "NAVSEA OP-5, Volume 1, Seventh Revision, Ammunitions and Explosives Ashore, Safety Regulations for Handling, Storing, Production, Renovation and Shipping." This document defines in detail what projects require explosives safety certifications.

The activity/region sends all site approval requests with explosives safety implications to the EFD/EFA/HQMC. A copy of the site approval request must also be sent to the appropriate NOSSA LANT/PAC Explosives Safety Support Office (ESSO) for concurrent review and comment directly to NOSSA. NOSSA LANT/PAC ESSOs have approval authority for storage sites involving Class/Division 1.2.2, 1.3 and 1.4 material (less than 300 pounds). Such requests will be submitted directly to the ESSOs from the EFD/EFA.

After reviewing the site approval request, the EFD/EFA/HQMC sends the site approval request to the Naval Ordnance Safety and Security Activity (NOSSA), Indian Head (Code N711). NOSSA provides approval or disapproval of the explosives safety aspects of the project to the EFD/EFA/HQMC and these comments form the basis for approval or disapproval of the proposed site. NOSSA approves or disapproves site approval requests within their authority. Requests exceeding their approval authority are forwarded to the Department of Defense Explosives Safety Board (DDESB). NOSSA will provide a final approval letter for compliance or rejection with explosives safety criteria to the EFD/EFA/HQMC. The address for NOSSA is:

Naval Ordnance Safety and Security Activity (N711)
23 Strauss Ave
Indian Head, MD 20640-5035
(301) 744-4965
DSN 354-4965
FAX (301) 743-6087

5.1.1 EXPLOSIVES SAFETY CERTIFICATIONS

Site approval requests that exceed the approval authority of NOSSA will be forwarded to the Department of Defense Explosives Safety Board (DDESB) for concurrence. This decision can only be made by NOSSA, therefore all site approval request packages being forwarded to NOSSA must contain sufficient copies of all enclosures to satisfy the additional submission to DDESB. The DDESB has the responsibility to establish safety standards for ammunition and explosives. The Board reviews and approves safety at sites for facilities involving ammunition or explosives, or structures near or affected by explosives safety criteria.

Explosives safety certifications are required on the following types of project site approval requests:

- All new construction of facilities used for ammunition and explosives activities.
- Changes in the use or mission of explosives facilities that modify established ESQD arcs or increase hazards.
- New construction of facilities not involving ammunition and explosives that are so near ammunition and other explosives that they are exposed to hazards or for which a reasonable doubt exists regarding exposure to hazards.
- Changes in an installation mission that expose facilities not involving ammunition and explosives to blast, fire, or fragment hazards or to potential toxic chemical agent release.
- Modification or changes to existing facilities involving ammunition or explosives, or facilities encumbered by an inhabited building ESQD arc, unless they are minor in nature and do not introduce an additional hazard. Modifications are generally defined as any project that actually constructs or adds something new that has not previously existed or that requires wholesale removal of a system or part of a facility for eventual replacement with a similar system.

- Maintenance and repair projects (other than routine) to facilities involving ammunition and explosives, or facilities at less than K=18, intraline distances from a potential explosive source.
- Modification of facilities currently under a waiver/exemption, or construction of a facility that will replace another facility under waiver/exemption.
- Downgrading an ordnance facility to an inert function, or reducing an explosive limit to remove an ESQC arc from an area to allow additional development.
- Non-DOD explosives operations conducted at DON activities.

5.1.2 EXPLOSIVES SAFETY CERTIFICATION WITHOUT SITE APPROVAL

Although maintenance and repair projects do not require site approval, many will require an explosives safety certification due to the location of the proposed work. Projects must be reviewed to identify explosives hazard risks and to make sure that appropriate safety measures are taken. Routine maintenance or minor repairs do not require explosives safety certification. Major modifications or extensive repair work do require an explosives safety certification. Distinguishing between major and minor projects should take into account the following criteria:

- **New Construction** - Any project that adds something that has not previously existed requires site approval/safety certification. Examples include fencing or lighting; construction of a new road or widening of an existing one; or adding mezzanines within a building.
- **Major Modification** - Any project that requires wholesale removal of a system or part of a facility and installation of a similar system requires explosives safety certification. Examples include replacement of roofs or refurbishment/replacement of utilities such as electrical or air conditioning systems.
- **Minor Restoration** - Where damage to a facility has been caused by storms, fires, etc., minor work to repair the facility will not normally require explosives safety certification. However, if the repairs are extensive enough to take a considerable period of time or the work will change the original function of the facility, an explosives safety certification is required.

An explosives safety certification without site approval follows the same process to obtain a site approval with explosives safety certification. The activity completes the NAVFAC Form 11010/31 with the required graphic documentation and forwards it to the EFD/EFA/HQMC with appropriate copies. The EFD/EFA/HQMC reviews the request to make sure it is complete and correct and forwards it to NOSSA for action.

5.1.3 INTERIM CONSTRUCTION AUTHORIZATION

Interim construction authorization is required to temporarily increase the number of non-operational people exposed to an ammunition and explosives hazard. It is granted as a condition of the project site approval or explosives safety certification of a project to permit construction workers to be within the unbarricaded intraline distance (K=18) portion of an inhabited building ESQD arc for the period a project is under construction. When ammunition and explosives operations must continue during construction, additional justification, addressing operational requirements and any additional safety precautions, must be provided.

5.1.4 PROJECTS NOT REQUIRING EXPLOSIVES SAFETY CERTIFICATION

The Navy has tried to limit the kinds of maintenance and repair projects that require explosives safety certification. To that end, the following kinds of projects are excluded from the explosives safety certification process.

- Routine maintenance or repair work that is performed on a regular basis where maintenance workers will be present for only a short period of time. Examples include mowing of grass, removal of underbrush, minor road maintenance, routine railroad track maintenance, and painting of facilities.
- Maintenance and repair projects that are located outside the intraline distance (K= 18) from a potential explosives source, provided there is no increase in the number of people exposed to an explosive hazard after project completion. Examples include road repairs and repaving, railroad track and bridge repair, roof repairs or maintenance. This exclusion applies to work performed in an ordnance operating facility and magazine, if all explosives are removed from the facility before beginning work and the conditions defined in paragraph OP-5 (paragraph 8-1.2.1b(4)) are met.
- Maintenance dredging projects.
- Airfield and waterfront maintenance and repair and utility replacement projects where the construction work can be controlled so as not to occur at the same time as explosives handling operations. This applies to most naval stations, supply centers, ship repair facilities, and submarine base piers as well as aircraft cargo handling (red label) areas and combat aircraft loading areas where explosives hazards are not continuously present.

This exclusion does not include work performed on or near the piers and wharves at the facilities listed below:

- Naval Weapons Stations Earle, Yorktown, Charleston, and Seal Beach
- Commander, Naval Activities Marianas (Kilo Wharf)
- Naval Magazines Pearl Harbor, and Indian Island
- Naval Station Rota
- NATO Ammunition Depot, Augusta Bay and Souda Bay
- Pacific Division, Port Hadlock Detachment
- Fleet Activities, Sasebo
- Fleet Activities, Okinawa, Tengan Pier
- Submarine Bases Kings Bay and Bangor

5.1.5 FINAL SAFETY REVIEW

A final safety review is part of all site approvals for projects that have explosives safety implications. Normally, the final safety review is issued at the time of the site approval. However, the DDESB often requires that projects that construct explosives operating or storage facilities or facilities located within ESQD arcs undergo a more detailed construction review. A final safety review often is required when the DDESB approves a project site contingent on specific construction requirements.

The DDESB requires that design drawings and specifications be submitted for final safety review. Normally, the information available at the Parametric Cost Estimate (PCE) phase of the design is sufficient for final safety review. The EFD/EFA/HQMC is responsible for assembling the documentation and submitting it to NOSSA who will, in turn, request DDESB final safety approval.

Provide one copy of the final site plan and one complete set of the PCE design drawings and specifications.

The site plan must show the planned development for the proposed project and its immediate vicinity at a scale no smaller than 1 inch equals 400 feet. In most cases, the location plan submitted with the site approval request is sufficient. Provide a topography map with appropriate contours when natural barricades are present, or when topography influences the layout (as in some chemical operations).

Provide a brief summary of the design procedures used if engineered protection is used to reduce the quantity/distance requirements. This summary should include a statement of the design objectives in terms of protection categories to be attained (as defined in NAVFAC P-397), explosives quantities involved, design loads applied, material properties and structural behavior assumptions, and sources of methods used. Detailed calculations are not required. Design of explosion-resistant facilities should be performed by an organization or individual experienced in the field of structural dynamics using design procedures accepted by professionals in the field such as Naval Facilities Engineering Service Center (NFESC), ESC60, Port Hueneme. If you have questions concerning this requirement, contact NAVFAC or NOSSA.

Provide information on the type and arrangement of the explosives operation or chemical processing equipment. Identify the overall explosives limit of the facility as well as the explosives limit for each room or cell.

Provide information regarding the number and type of personnel (civilian or military, and the kind of work they are performing, administration, production, support, etc.) located in offices and operating areas of the proposed project.

When chemical agents are involved, provide information regarding people, protective clothing and equipment, treatment of effluent and waste materials, adequacy of medical support, average wind speed and direction, warning and detection systems, and hazard analysis, as appropriate.

A Requirements Hazard Analysis (RHA) must be performed on all new or modified explosive industrial operations. Based on this analysis, engineering design criteria should be developed for selecting equipment, shielding, engineering controls, and protective clothing appropriate for the facility and operation. Specific requirements are addressed in NAVSEA OP 5.

5.1.6 SITE APPROVAL BY SAFETY ASSESSMENT FOR EXPLOSIVES RISK (SAFER)

If, following a review by NOSSA, it is determined that site approval cannot be granted by using the qualitative tables in NAVSEA OP 5, NOSSA will evaluate the potential for obtaining site approval by using SAFER. This procedure allows consideration for probability of an explosives event and the expected exposure of personnel. Because the information required for review under SAFER differs considerably from that for a conventional site approval, NOSSA will provide the necessary guidance for preparing a SAFER submission, in accordance with Chapter 8 of NAVSEA OP 5.

5.2 SITE APPROVAL REQUESTS WITH ELECTROMAGNETIC RADIATION SAFETY IMPLICATIONS

EMR criteria fall into three distinct areas:

- Hazards of Electromagnetic Radiation to Personnel (HERP)

Strong radio frequency (RF) fields can be hazardous to personnel. Present exposure limits are based on thermal effects - the actual heating of tissue due to the absorption of RF energy. These limits are based on RF exposure over an averaging time that is dependent on frequency and type of exposure. However, the typical averaging time is 6 minutes (0.1 hr). Personnel can be exposed to higher RF fields than those listed, but for shorter periods of time. The safe separation distances for personnel are based on the exposure limits for a six minute interval. Personnel can safely enter this area for shorter periods of time; however, the RF field strengths will increase nearer to the antenna and the allowable exposure time will drop accordingly. HERP safe separation distances are based on the Permissible Exposure Limits (PELs) provided in Department of Defense (DoD) Instruction 6055.11 "Protection of DoD Personnel from Exposure to Radiofrequency Radiation and Military Exempt Lasers," dated February 21, 1995.

- **Hazards of Electromagnetic Radiation to Fuels (HERF)**
Under the right conditions, RF fields can ignite fuel vapors. In order for this phenomenon to occur, there must be a flammable fuel-air mixture within range of the induced arcing, the arc must contain a sufficient amount of energy to cause ignition, and the gap across which the arc occurs must be a certain minimum distance. Handling of fuels under normal circumstances does not produce a flammable atmosphere except close to fuel vents, open fuel inlets, or close to spilled fuel. The flammability of fuels is also dependent upon temperature. At normal temperatures, fuels such as AV-gas, JP-4, and automotive gasoline are flammable. Diesel fuel is not flammable below approximately 120° F. Due to the many variables involved, minimum separation distances have been established between RF communications transmitters and fueling operations at shore stations. For emitters radiating less than 250 watts, the separation distance between the RF source and fuel is 50 feet (15 meters). For transmitters radiating more than 250 watts, the minimum distance is 200 feet (60 meters). For pulsed transmitters such as radars, fuel sites should not be exposed to peak power densities exceeding 5 watt/cm². The HERF criteria are given within NAVSEA OP3565/NAVAIR 16-1-529/NAVELEX 0967-LP-624-6010, Volume 1.
- **Hazards of Electromagnetic Radiation to Ordnance (HERO)**
Radio and radar transmitting equipment produce high intensity electromagnetic fields. Such fields can cause premature initiation of electro-explosive devices (EEDs) contained in ordnance systems. For EMR approvals involving HERO, site approval requests are submitted to NOSSA (N716) with a copy to Naval Surface Warfare Center (NSWC), Dahlgren Division. Many projects that require HERF, HERP, and EMI approvals will also require HERO approval. These are separate approvals and, when required, must be submitted to both SPAWAR, NOSSA, and NSWC, Dahlgren Division.

In addition to these safety considerations, there is also the operational consideration of electromagnetic interference (EMI).

5.2.1 EMR SAFETY CERTIFICATIONS

The CNO has divided the responsibility for safety certifications associated with the hazards of electromagnetic radiation between COMSPAWARSYSCOM for HERP, HERF, and EMI projects and NOSSA with a copy to Naval Surface Warfare Center, Dahlgren Division for HERO projects. Requests for site approvals which require reviews for EMR hazards should be directed to:

Space and Naval Warfare Systems Center (SPAWARSYSCEN) Charleston
Attn: Code 323
P.O. Box 190022
North Charleston, SC 29419-9022

(843) 218-4228
DSN 588-4228
FAX (843) 218-4238

For PACDIV activities, HERP, HERF and EMI reviews should be forwarded to:

Space and Naval Warfare Systems Activity Pacific (SPAWARSYSACT PAC)
Attn: Code D915
675 Lehua Avenue
Pearl City, HI 96782-3356
(808) 471-1976
DSN 315-1976
FAX (808) 474-5511

The EFD/EFA/HQMC reviews the request for site approval documentation determines what safety certifications are required, and makes the appropriate submissions.

Requests for site approval/safety certification are forwarded by the EFD/EFA/HQMC to the appropriate command(s) for the following kinds of projects:

- Installation of a transmitting antenna
- Construction of any facility intended to house EMR-sensitive equipment
- Any project that would place people, fuel, or explosives in an area illuminated by EMR
- Change of equipment that alters the electromagnetic environment

The EFD/EFA/HQMC may approve project sites with HERP, HERF, or EMI implications where the transmitter is less than 7 watts average power and antenna gain is less than 6 dBi, provided that no personnel are within 3 feet of the transmitting antenna and there are no fueling operations within 50 feet. Otherwise, the request for site approval is sent to the appropriate SPAWARSSYSCOM reviewing activity.

SPAWAR does not centrally fund HERP, HERF, or EMI reviews. Navy activity/region requesting site approval must fund them. The appropriate SPAWAR office will develop a case-by-case cost estimate for the site approval/safety certification. Costs normally range from \$8000 to \$20,000 or more, depending on the number of systems that must be reviewed. NAVCOMPT funding documents will then need to be forwarded before the review can begin. Note that no progress will be made on the site approval request until funding is received. These reviews can take from three to eight weeks or more, depending on the complexity of the analysis.

5.2.2 PROPOSED SITES WITH HERO IMPLICATIONS

For projects involving HERO safety criteria, site approval requests will be forwarded to NOSSA (N716) with a copy to:

NSWC, Dahlgren Division
Attn: Code (J50)
17320 Dahlgren Road

Dahlgren, VA 22448-5100

e-mail address: j50@nswc.navy.mil

Comments on requests for site approvals involving HERO criteria are provided to the EFD/EFA/HQMC by NSWC, Dahlgren Division. Projects involving fire alarm radio transmitters of 1 watt of power or less, and located at least 10 feet from "HERO Unsafe" ordnance or 5 feet from "HERO Susceptible" ordnance, need not be submitted for review. These transmitters would be included in the list of transmitters submitted as the pre-HERO survey data package in accordance with OP 3565, Volume 2.

NOSSA does not currently fund the costs of HERO impacted site reviews. Navy activities/regions requesting site approval must fund them. NSWC DD will develop a case-by-case cost estimate for the site approval request/safety certification. NAVCOMPT funding documents will then need to be forwarded before the review can begin.

5.3 SITE APPROVAL REQUESTS WITH AIRFIELD SAFETY IMPLICATIONS

"NAVFAC P-80.3, Airfield Safety Clearances," provides criteria and regulations with respect to lateral and vertical clearances for siting facilities near runways. The purpose of these criteria is to provide a safe operating environment at Navy air stations. New facilities, including temporary, permanent, and mobile structures, must be located and constructed in accordance with these criteria.

Some project sites at airfields will require a waiver of the airfield safety criteria. Where appropriate, NAVAIRSYSCOM will grant waivers for deviations from airfield safety criteria. These waivers are considered when the degree of deviation from criteria can be precisely documented and, in the opinion of NAVAIRSYSCOM, the deviation from safety criteria is balanced by operational needs. To avoid the need for safety waivers and to minimize their issuance and project delays, the activity should contact NAVAIRSYSCOM (AIR 8.0) during the planning stages of the project to discuss the need/justification for deviation from airfield safety criteria. Consultation during the planning stage allows changes to be incorporated into the project, prior to design, that will allow the project to meet safety criteria.

NAVAIRSYSCOM will comment on the site approval request and whether a request for waiver of criteria will be favorably considered. The airfield safety criteria waiver is a condition of the site approval. If it is indicated that a waiver would be favorably considered, the request for a waiver should be sent from the activity/region to NAVAIRSYSCOM (AIR 8.0) approximately 60 days before construction. The address for NAVAIRSYSCOM waiver review is:

Naval Air Systems Command
Bldg 404
22145 Arnold Circle
Unit 7
Patuxent River, MD 20670-1541
Attn: Air 8.0

When planning project sites that may impact air space, you must coordinate with the cognizant Navy representative (“NAVREP”) in the Federal Aviation Administration (FAA) regional office. FAA concurrence with the proposed project site must be included in the site approval request.

5.3.1 AIRFIELD SAFETY CERTIFICATIONS

NAVAIRSYSCOM does not certify airfields. If the airfield meet the requirements of the NAVFAC P-80.3, it meets the minimum airfield safety requirements established for the Navy. If there are potential violations to the safety criteria, a request for airfield safety waivers should be forwarded to NAVAIR (AIR 8.3) for review.

5.4 SITE APPROVAL REQUESTS FOR SMALL ARMS RANGES

Requests for site approval for small arms ranges are submitted by the EFD/EFA/HQMC to the CNO (N411). The EFD/EFA/HQMC reviews the request to make sure it conforms with design criteria and forwards comments with the site approval request. The CNO approves or disapproves the request and notifies the EFD/EFA/HQMC. NOSSA reviews the request for site approval of a small arms range only when the project site is encumbered by an Explosives Safety Quantity Distance (ESQD) arc or the range safety zone overlaps ammunition/explosives related facilities.

5.5 RADIOACTIVE MATERIAL / RADIOACTIVE PRODUCING MACHINES

Projects involving radioactive material or radioactive producing machines should be sent for review and approval to:

Officer in Charge
Radiological Affairs Support Office (RASO)
COMNAVSEADDET-RASO Code 06GNS
Naval Weapons Station Yorktown
Yorktown, VA 23691-5098

Phone: DSN 953-4692
Comm: (804) 887-4692

Drainage, specifications and a description of radioactive material/machine should be submitted. Items to be included with submittal include materials, safety seals, intrusion alarms, warning lights, etc.

6.0 REQUIRED DOCUMENTATION FOR SITE APPROVAL REQUESTS

The NAVFAC Form 11010/31, Request for Project Site Approval/Explosives Safety Certification, is the form used in the site approval process. Note that the form has two parts. Part I includes general information on the project, including an area for the various approvals. Part II has three divisions, Division A requires information for projects with explosives safety implications, Division B is for airfield safety, and Division C is for electromagnetic radiation safety.

6.1 NAVFAC FORM 11010/31 REQUEST FOR PROJECT SITE APPROVAL/ EXPLOSIVES SAFETY CERTIFICATION

The format of NAVFAC Form 11010/31 is for use by the activity/region and EFD/EFA/HQMC. The information to be inserted into each block on NAVFAC Form 11010/31 Parts I and II is described in the following paragraphs.

6.1.1 NAVFAC FORM 11010/31 PART 1, SECTION A, INSTALLATION SUBMISSION

This section is to be filled out by the originating activity/region.

Block 1. TO

Enter the name of the cognizant EFD/EFA/HQMC. Do not use abbreviations.

Block 2. FROM

Enter the originating activity name and location. Do not use abbreviations.

Block 3. PROGRAM YEAR

Enter the Fiscal Year in which the project is proposed for funding. If the project is currently unprogrammed, enter "UP".

Block 4. COST (\$000)

Enter the estimated cost of the project in thousands of dollars.

Block 5. TYPE FUNDING

Enter "MILCON" for Military Construction, "O&M,N" for Operations and Maintenance, Navy, "NAF" for Nonappropriated Funds, "NWCF" for Navy Working Capital Fund, "GOJ" for Government of Japan funded, "NATO" for North Atlantic Treaty Organization funded, etc. "Other" can be used for miscellaneous funding sources.

Block 6. ACTIVITY UIC

Enter the Unit Identification Code (UIC) of the originating activity/region.

Block 7. DATE

Enter the preparation date. Subsequent revisions should reflect new dates, do not reuse the same form as was previously submitted, if the project is being resubmitted.

Block 8. CATEGORY CODE & PROJECT TITLE

Enter the five-digit category code number from NAVFAC P-72 for the primary facility. In the case of a multi-use facility, enter the category code of the predominant use. The project title is the nomenclature from NAVFAC P-72 or a local description of the project. Name the special area if the project is not located at the primary activity.

Block 9. PROJECT NUMBER

For Military Construction, enter the full "P-number". For other than MILCON projects, enter the Special Project number or an activity project number or use "Not Applicable (N/A)."

Block 10. TYPE OF PROJECT

Check all blocks which apply to the project, giving additional details in Block 12.

Block 11. TYPE OF REQUEST

Check the blocks which describes the type of request. If the project has been submitted before, check "Resubmittal" and include appropriate remarks in Block 12 to explain why.

Block 12. PROJECT DESCRIPTION

Briefly describe the proposed project. This may include type of construction materials, special construction features such as hardening, shatterproof windows, electromagnetic radiation shielding, etc. Include any descriptive details which may be necessary for clarity such as location in relationship to safety criteria, utilities or site work, rationale for proposed siting, past history of the project if it is a resubmission, etc.

Block 13. PROJECT MAPS

Indicate the number of sets of the project maps attached to the NAVFAC Form 11010/31. Enter "N/A" if no maps are attached.

Block 14. PARTS OF NAVFAC FORM 11010/31

Identify which supplemental Part II of the NAVFAC Form 11010/31 is included. Projects which are encumbered by safety criteria will require one or more Divisions of Part II.

6.1.2 NAVFAC FORM 11010/31 PART 1, SECTION B, EFD REVIEW

This section will be completed by the EFD/EFA/HQMC. For those projects which are forwarded for Safety Certification, the EFD/EFA/HQMC will ensure that the appropriate number of copies of the project siting documentation and maps are attached.

Block 1. NAME/CODE/PHONE NUMBER OF REVIEWER/E-MAIL ADDRESS

Enter the name, code, and phone number and e-mail address of the EFD/EFA/HQMC representative who has performed the site approval action.

Block 2. DATE RECEIVED

Enter the date project was received by the EFD/EFA/HQMC.

Block 3. EVALUATION

Enter summary of the evaluation of the site.

Block 4. SAFETY REVIEW REQUESTED

Check the appropriate box(es) indicating which review authorities will review the site approval/safety certification request.

Block 5. DATE FOWARDED

Enter the date the EFD/EFA/HQMC has forwarded the site approval request/safety certification.

Block 6. DATE OF SAFETY CERTIFICATION

Enter the date of the safety certification.

6.1.3 NAVFAC FORM 11010/31 PART 1, SECTION C, FINAL SITE APPROVAL ACTION

This section is for use by the EFD/EFA/HQMC to document the Final Site Approval Action for the site. Site approval, disapproval, the conditions of approval, additional reviews, or waivers required and the safety certification documentation are identified in this section. The EFD/EFA/HQMC will forward a copy to the appropriate activity and monitor future action to comply with the conditions of the site approval.

Block 1. APPROVALS

Check the appropriate boxes which apply to the site approval/explosives safety certification request.

Block 2. CERTIFICATION IDENTIFICATION

Enter the identification serial and date of the safety certification letter from NAVAIRSYSCOM, SPAWARSYSCOM, or NOSSA.

Block 3. REMARKS

Enter any conditions for approval of the project, e.g., a time limit for occupancy, special construction features, remove ordnance during construction, etc.

Block 4. OTHER APPROVALS REQUIRED

Check the box indicating follow-on approvals required to complete site approval action. Note "Airfield Safety Waiver Required" requires action by the activity commanding officer and "Final Explosives Safety Review" requires action by the EFD/EFA/HQMC.

Block 5. APPROVING OFFICIAL

Signature of official approving this site

Block 6. DATE

Enter date of action.

6.1.4 NAVFAC FORM 11010/31 PART II

Site approval for projects which are involved with or encumbered by ammunition and explosives, electromagnetic radiation, and airfield safety require safety certification from the command responsible for enforcing the safety criteria before site approval can be granted. It is the responsibility of the originating activity to provide the required justification and rationale and any maps needed to clarify the proposed project location relative to the safety criteria requirements or violations. The host activity or EFD/EFA/HQMC may insert additional justification as appropriate to fully explain any sitting constraints applicable to the proposed project.

**6.1.4.1 SAFETY REVIEW FOR AMMUNITION AND EXPLOSIVES
– PART II, DIVISION A**

In addition to the information contained in Part 1, the information required by Part II, Division A of NAVFAC Form 11010/31 is needed with site approval requests requiring ammunition and explosives safety review prior to site approval. Maps and plans illustrating this information must also be enclosed.

Block 1. NEW/CLASS/DIVISION/ESQD ARC(S) OF PROJECT

If the project will include ammunition or explosives operations or storage, state the Class and Division and the Net Explosives Weight (NEW). Indicate the ESQD arcs (if any) created by the proposed project. Indicate distances from Inhabited Building(s) (IB), Intraline (IL), Intermagazine (IM), Public Transportation Route (PTR), Barricaded (B), and Unbarricaded (UB) as defined by NAVSEA OP-5. Use a continuation sheet if needed.

Block 2. CNO WAIVERS & EXEMPTIONS

List and state the reason for existing CNO waivers and exemptions which relate to the project, and indicate those which will be eliminated by the proposed project.

Block 3. PERSONNEL

Enter the numbers of personnel, proposed and existing, who will be exposed to an explosives hazard as a result of the proposed project. This would include personnel located within the proposed facility, or within the inhabited building ESQD arc created by the proposed facility. Make a note in Block 3 if the new personnel within the arc will be relocated from another ESQD arc.

Block 4. FACILITY NUMBER/TYPE

Identify all existing or planned facilities inside or in close proximity to ESQD arcs associated with the project or that generate arcs encumbering the project. State the facility number (this should correspond to the numbers on the enclosed plans and maps), and the type of operations performed there.

List the numbers of personnel associated with each facility. Indicate the NEW Classes and Divisions of ammunition and explosives, or other hazardous materials in facilities located within the inhabited building distance of the proposed project.

Indicate the distances between facilities and the proposed project (if appropriate) to include both the actual distances and the distances required by the criteria of OP-5.

Block 5. SITING RATIONALE

State the reason for the proposed project location including strategic, operational, functional and/or time constraints which dictate or influence location of the facility. Also, state economic factors which may influence the project location. Discuss any feasible alternatives and the reasons for rejecting these alternatives. Use the reverse side of the form or an attachment if additional space is needed.

Block 6. SIGNATURE OF PUBLIC WORKS OFFICER/BASE CIVIL ENGINEER

The signature of the Public Works Officer/ Base Civil Engineer including e-mail address.

Block 7. TELEPHONE NUMBER

List both DSN and commercial telephone numbers of the Public Works Officer/Base Civil Engineer .

Block 8. DATE

Enter date of the signature.

Block 9. SIGNATURE OF EXPLOSIVE SAFETY OFFICER/INSTALLATION SAFETY OFFICER

The signature of the Explosive Safety Officer/Installation Safety Officer including e-mail address.

Block 10. TELEPHONE NUMBER

List both DSN and commercial telephone numbers of the Explosive Safety Officer/Installation Safety Officer.

Block 11. DATE

Enter date of the signature.

6.1.4.2 AIRFIELD SAFETY REVIEW – PART II, DIVISION B

In addition to the information contained in NAVFAC Form 11010/31 Part I, the information required on Part II, Division B of NAVFAC Form 11010/31 is needed with all site approval requests requiring airfield safety review. Maps and plans illustrating this information must be enclosed. The maps should include both existing conditions and proposed changes. It is also important that site approval requests be coordinated with the air operations officer so that all are aware of potential impact on air operations.

Block 1. RUNWAY NUMBER AND TYPE

Enter the runway number whose safety criteria is violated by the proposed project, noting whether it is Class A or B.

Block 2. AIRFIELD ELEVATION

Enter the elevation of the runway centerline at the point at which a perpendicular line would intersect the project site.

Block 3. GROUND ELEVATION AT PROJECT SITE

Enter the ground elevation at the project site.

Block 4. LATERAL DISTANCE FROM RUNWAY CENTERLINE

Enter the distance from the end of the runway, if applicable, or of a perpendicular line from the runway centerline or centerline extended to either the nearest point of the proposed project or the highest point of the proposed project, whichever is the most restrictive in terms of criteria violations.

Block 5. HEIGHT OF FACILITY

Enter the total height of the proposed facility. If the portion of the proposed project closest to the runway is not the highest part of the building, but is the most critical in terms of safety criteria, that height must also be stated. The objective is to identify anything that penetrates an airfield imaginary surface or encroaches a clear zone.

Block 6. HORIZONTAL DISTANCE TO RUNWAY PRIMARY SURFACE, OR EDGE OF PARKING APRON

State the horizontal distance from the runway primary surface to the closest or highest part of the project. If parking apron is involved, provide the distance from the parking apron edge to the project. Identify the clear zones by type (I, II, III) if any are encroached upon.

Block 7. SITING RATIONALE

State the reason for the proposed project location including operational, functional, and/or time constraints which dictate or influence the location of the facility. Also, state any economic factors such as cost avoidance, self-amortization, energy conservation, etc., which may influence the project location. Discuss any feasible alternatives and the reasons for rejecting these alternatives. (Use reverse side of form if additional space is needed.)

Block 8. EXISTING WAIVERS

State the waiver number and describe the conditions of any existing airfield waivers associated with the proposed project. Indicate whether or not the need for the waivers will be removed as a result of this project.

Block 9. ZONING

Describe the applicable portions of local ordinances, zoning regulations, and other county and state controls relative or applicable to the project, along with current zoning regulations, decisions, and policies.

Block 10. POINT OF CONTACT

Enter the name of the point of contact at the activity who can supply additional information concerning the proposed project including the e-mail address.

Block 11. TELEPHONE NUMBER

List both DSN and commercial telephone numbers of the activity point of contact.

Block 12. REQUESTED BY

Enter name of activity official requesting site approval. The Air Operations Officer is also required to sign the request.

Block 13. DATE

Enter date of request.

6.1.4.3 ELECTROMAGNETIC RADIATION REVIEW PART II, DIVISION C

In addition to the information required by Part 1, the information required by Part II, Division C of NAVFAC Form 11010/31, is needed with site approval requests requiring review and certification for Hazards of Electromagnetic Radiation to Ordnance (HERO), to Fuels (HERF) and to Personnel (HERP). Assistance in developing site approval documentation for sites with HERF and HERP implications is available from the Space and Naval Warfare Systems Center (SPAWARSYSCEN) Charleston, and the Space and Naval Warfare Systems Activity Pacific (SPAWARSYSACT PAC), for activities in the PACNAVFACENGCOM area of responsibility. Maps and plans illustrating this information must also be enclosed.

Note that Section I NAVFAC Form 11010/31, Part II, Division C, pertains to transmitter information. Sections 2 and 3 deal with antenna information and either one shall be completed depending upon which type of antenna is coupled to the transmitter. Section 2 Linear Antenna applies primarily to wire, vertical pole or tower, or multiple element antennas for low frequency (LF) through ultra high frequency (UHF) communications. Section 3 Aperture Antenna applies primarily to dish type or similar antennas for UHF and above communication (satellite, microwave, etc.) and radar antennas. Sections 4 through 6 apply to all transmitter installations and provide information on the locations of potential hazard areas relative to the transmitting antennas.

Section 1. TRANSMITTER

The following section describes the information required for transmitter installations or for projects affected by transmitters.

Block 1.(a) MANUFACTURER'S NAME/TYPE

Enter the manufacturer's name and model number if available. Also type of-transmitter e.g., satellite communications, precision approach radar, communications, etc.

Block 1.(b) NOMENCLATURE

Enter the transmitter military reference number, (such as AN/FRT-39).

Block 1.(c) FREQUENCY ALLOCATION/ASSIGNMENT STATUS

Enter the approved frequency allocation number and indicate whether a frequency assignment request has been submitted through the appropriate channels to NAVEMSCEN..

(1) Navy and DoD policy requires that electronic equipment that uses the electromagnetic spectrum must obtain a frequency allocation. Each piece of equipment or system will have an assigned number known as J/F- 1 2 number.

(2) Enter the Federal Communications Commission (FCC) Type Acceptance Number if the frequency allocation number is not available. This applies only to commercial off-the-shelf equipment. Civilian equipment parameters are reviewed by the FCC in a manner much like the DoD frequency allocation process. The number assigned is generally the same as the manufacturer's model number. For example, the TERRACOM TCM-602 transmitter is TCM-602. FCC Type Acceptance does not exempt equipment from the DoD frequency allocation process. A frequency allocation is still required for all equipment developed, leased, or procured by any DoD agency or DoD contractor.

(3) Navy and DoD policy requires that a frequency assignment request be submitted before an RF system can be operated at a particular location. The submission of this request should be done as soon as possible, since it can take weeks or even months to be processed. If the system is to be installed in a foreign country, the process can take up to a year or more, since coordination with the host nation must be done at the CINC level.

Block 1.(d) FREQUENCY RANGE

Enter the transmitter Radio-Frequency (RF) tuning range or exact frequencies to be used, in megahertz (MHz).

Block 1.(e) OUTPUT POWER INFORMATION**Block 1.(e)(1) PEAK ENVELOPE POWER (PEP)**

This blank must be completed for all amplitude modulated and pulse modulated systems. The PEP is the power supplied to the antenna transmission line by a transmitter during one radio-frequency (RF) cycle at the highest crest of the modulation envelope, under normal operating conditions.

Block 1.(e)(2) MEAN/AVERAGE POWER

The mean/average power is defined as the power supplied to the antenna transmission line averaged over a period of time sufficiently long enough to compare it with the period of the lowest frequency encountered in the modulation. A time of 0.1 (1/10th) second during which the mean power is greatest is normally selected. For a pulse system, the average power is calculated as:

$$\text{Average Power} = \text{Peak Power} \times \text{Pulse Duty Cycle (see Block 2(g))}$$

Note: Provide the transmitter emission designator in the same block. (e.g., AM: J3E or FM:F1B)

Block 1.(f) MODULATION TYPE INFORMATION

Check the block which identifies the general modulation type.

Block 1.(g) PULSE CHARACTERISTICS

This data is only applicable to pulse-modulated systems such as radar

Block 1.(g)(1) PULSE WIDTH

Enter the pulse duration (PD) or width (in microseconds). Pulse duration is the time interval between the points at which the instantaneous value on the leading and trailing edge is 90 percent of the peak pulse amplitude.

Block 1.(g).(2) PULSE REPETITION FREQUENCY (PRF)

Enter PRF in Hertz (Hz). The PRF is the rate at which pulses or a group of pulses are transmitted. If several different pulse rates are employed by the system, each rate should be listed along with pulse widths that will be used with each rate; e.g. 320 Hz—0.3, 1.0 μ sec; 640—0.3 μ sec.

Block 1.(g).(3) DUTY CYCLE

Enter the duty cycle, if available. The duty cycle is either (1) the ratio of the average power output to the peak power output of the wave form, or (2) the pulse duration (PD) times the pulse repetition frequency (PD x PRF = Duty Cycle). Either method will produce a "pulse time on" versus "pulse time off" ratio which can be multiplied by peak power to determine average power.

Section 2. LINEAR ANTENNA**Block 2.(a) MANUFACTURER'S NAME/TYPE**

Enter the manufacturer's name and model number. Also the type of antenna e.g., whip, rotatable log periodic antenna (RLPA), multiple element beam antenna (YAGI), dipole, conical monopole.

Block 2.(b) NOMENCLATURE

Enter the antenna military reference number if available (such as AS-3482/GRC).

Block 2.(c) DIMENSIONS

Enter the physical or electrical size of the antenna in feet. This would include the length or height of the antenna radiating elements.

Block 2.(d) HEIGHT ABOVE GROUND

Enter the elevation of the base (lowest point) of the antenna above ground level; e.g. height to be mounted to the pole, tower, or building, etc. in feet. If the base of the antenna is on the ground, enter zero. Enter the ground elevation and the height of the antenna's mounting platform; e.g., building, tower, etc., in feet.

Block 2.(e) ELEVATION ANGLE

Enter the elevation angle in degrees. This is the angle above the horizontal (or below) to the center line of the main beam lobe. For electronic and mechanical scanning system, this is the lowest vertical angle to which the antenna can be depressed. List the different main beam lobe angles for antenna systems that have a selective pattern, when applicable.

Block 2.(f) POLARIZATION/PATTERN

Enter the polarization and pattern of the antenna. Polarization refers to the orientation of the radiated electromagnetic wave relative to the ground plane. Usually horizontal (H) or vertical (V) should be entered. Provide radiation pattern description and include a diagram depicting the actual lobe structure, if available. Information on antenna pattern may be obtained from the antenna manufacturer.

Block 2.(g) MAIN BEAM GAIN

Enter the main beam gain in decibels (dBi). Antenna gain is generally expressed in maximum gain over an isotropic antenna (dBi). Unless otherwise indicated, by specifying dBd, the gain will be assumed to mean gain over an isotropic antenna. Specifying dBd indicates that the maximum gain is over a dipole antenna.

Block 2.(h) COVERAGE ANGLE

If the antenna can be moved or scanned, mechanically or electronically, in azimuth, enter the horizontal main beam coverage angle in degrees. Information on antenna pattern and coverage angle may be obtained from the antenna specification. (For instance, a fully rotating antenna would have a coverage angle of 360°).

Section 3. APERTURE ANTENNA**Block 3.(a) MANUFACTURER'S NAME/TYPE**

Enter the manufacturer's name and model number, the same as with linear antennas. Also the type of antenna e.g., three meter horn, Fed Parabolic Reflector, Cassegrain Reflector.

Block 3.(b) NOMENCLATURE

Enter the antenna military reference number, the same as with linear antennas.

Block 3.(c) DIMENSIONS

Enter the physical size of the antenna, in feet. This would include the width and height of a rectangular antenna, or diameter of a circular antenna.

Block 3.(d) HEIGHT ABOVE GROUND

Enter the elevation of the base (lowest point) of the antenna above ground level; e.g. height to be mounted to the pole, tower, or building, etc. in feet. If the base of the antenna is on the ground, enter zero. Enter the ground elevation and the height of the antenna's mounting platform; e.g., building, tower, etc., in feet.

Block 3.(e) MINIMUM ANTENNA ELEVATION ANGLE

Enter the minimum elevation angle in degrees. This is the lowest vertical angle to which the antenna can be depressed. It could range from directly overhead (+90°) to straight down into the ground (-90°).

Block 3.(f) HORIZONTAL BEAM WIDTH

Enter the horizontal beam width in degrees. This is the angle in degrees between the 3dB points (half power points) of the main beam measured in a horizontal plane.

Block 3.(g) VERTICAL BEAM WIDTH

Enter the vertical beam width in degrees. This is the same as horizontal beam width, but in a vertical plane.

Block 3.(h) SCAN CHARACTERISTICS**Block 3.(h)(1) TYPE OF SCANNING**

Enter the type of scanning, indicating "electronic," "mechanical," or combination. The term "electronic" denotes an antenna that does not physically move, but rather shifts the direction of the main beam by means such as switching or phasing the antenna elements. The term "mechanical" denotes the physical rotation of an antenna.

Block 3.(h)(2) VERTICAL/HORIZONTAL SCANNING COVERAGE

Enter the vertical and horizontal scanning in degrees or revolutions per minute (RPM). If an electronic scan system, degrees are applicable. If a mechanical scan system, RPMs or degrees may be applicable.

Block 3.(i) GAIN

Enter gain relative to an isotropic antenna (dBi).

Block 3.(i)(1) MAIN BEAM

The main beam gain is that solid lobe radiating away from the antenna in which the highest output power is transmitted. It encompasses the entire solid lobe over which the output power is not less than 3 dB below the highest output power (half power point).

Block 3.(i)(2) FIRST SIDE LOBE GAIN

In addition to the main beam, most antennas also exhibit secondary areas of increased transmission capability. These areas are called side lobes. Side lobes tend to fan out from the centerline of the main beam. The side lobe closest to the main beam is called the first side lobe. The gain of this side lobe is relative to the gain of the fundamental main beam described above. List all first side lobe gains associated with their main beam gain.

Block 3.(j) COVERAGE ANGLE

If the antenna can be moved or scanned mechanically or electronically, in either azimuth or elevation, enter the elevation and horizontal main beam coverage angle in degrees. This would include a maximum and minimum elevation, e.g., a radar may have an azimuth coverage angle of 360° and an elevation coverage of -7° to +85°. Information on antenna pattern/coverage angle may be obtained from the antenna manufacturer.

Block 4. HERP (Hazards of Electromagnetic Radiation to Personnel)**Block 4.(a)**

For transmitter antenna installations enter the location and description of occupied buildings under or in the vicinity of the electromagnetic umbrella. The description of the building should include its height and its structural composition; e.g., corrugated metal walls or poured concrete with metal backing. If the project is for a building, rather than antenna, indicate which antennas radiate upon the building.

Block 4.(b)

Discuss methods for restricting personnel from the hazardous areas. Topography and grade differences between personnel use areas and potential hazard sources should be highlighted and discussed. (When more space is required, attach a continuation sheet.)

Block 5. HERF (Hazards of Electromagnetic Radiation to Fuel)**Block 5.(a)**

Enter the location of the nearest fueling operation. Indicate what the facility is, e.g., gas station, storage tank, tank truck parking, (storage or handling).

Block 5.(b)

Enter the type of fuel to be stored or handled near the proposed transmitter.

Block 6. HERO (Hazards of Electromagnetic Radiation to Ordnance)

Enter HERO classification of ordnance at the activity (i.e., SAFE, SUSCEPTIBLE, UNSAFE) and complete NAVFAC Form 11010/31 Part II Division A to identify the type, class, location and quantity of explosive in the vicinity of a potential EMR hazard source.

Block 7. POINT OF CONTACT

Enter the name of the point of contact at the activity who can provide additional information concerning the proposed project including the e-mail address.

Block 8. TELEPHONE NUMBER

List both DSN and commercial telephone numbers of the point of contact.

Block 9. REQUESTED BY

Enter name of activity official requesting site approval.

Block 10. DATE

Enter date of request.

6.2 REQUIRED GRAPHIC DOCUMENTATION

In addition to the justification and rationale documented on NAVFAC Form 11010/31, plans and maps showing the proposed project location in relationship to the activity's planned land use, existing facilities, and siting constraints are a necessary part of each site approval request.

6.2.1 LOCATION MAP

The location map must show the project site relative to its location on the activity. Features which must be emphasized are the project's relationship to existing structures and facilities, natural and man-made development constraints, and the project's impact on planned development. This map should be a copy of the activity existing conditions map, land use, or ultimate development plan annotated as necessary to show the above relationships.

6.2.2 SITE PLAN

The site plan should be at a scale no smaller than 1 inch = 400 feet and provide information on the project and its site development as follows:

- Project location showing project orientation and adaptation to topography and existing facilities.

- Vehicular circulation and access to the project environs.
- Utility distribution systems.
- Natural and/or man-made constraints in the vicinity of the proposed project, and the planned mitigation of these constraints.
- Structure separation requirements necessary for fire safety.
- Scale and North arrow.
- Date information on the map was certified.

6.2.3 SPECIALIZED GRAPHIC DATA

In addition to the graphic data required for site approval outlined above, specialized safety criteria data must be highlighted on site plans for all projects which must receive a Safety Certification. In instances where more than one set of criteria must be addressed it should, as far as practical, be illustrated on the same site plan.

- **Safety Certification for Ammunition and Explosives**
Site plans for projects involving ammunition and explosives safety criteria must include the following data:
 - (a) Outline in yellow the existing inhabited building ESQD arcs in the vicinity of the project site.
 - (b) Outline in red the intermagazine, intraline, or public transportation route arcs where applicable.
 - (c) Outline in green all new arcs or any arcs which will change as a result of the proposed project.
 - (d) Show the point of origin, length of radius, quantity of explosives, and K-factor for all arcs identified on the map.
 - (e) Identify by facility number all facilities within inhabited building ESQC arcs of a proposed or modified explosive facility as well as all facilities listed in Block 4 of NAVFAC Form 11010/31 Part II Division A.
- **Airfield Safety Certification**
Site plans for projects involving airfield safety criteria must include the following data:
 - (a) Airfield elevation.
 - (b) Ground elevation at the project location.
 - (c) Lateral distances (in feet) from the runway centerline, edge of aircraft parking aprons or taxiways to the critical points of the proposed project location.
- **Electromagnetic Radiation Safety Certification**
Site plans for projects involving electromagnetic radiation safety criteria must show and highlight the following.
 - (a) Show explosives transportation routes in the vicinity of radio frequency generating facilities. (HERO)
 - (b) Show ammunition and explosives storage and/or operating facilities. (HERO)
 - (c) Show the position and relationship between radio frequency generating facilities and personnel support facilities, inhabited buildings, and transportation routes. (HERP)
 - (d) Show the position and relationship between radio frequency generating facilities and storage, handling and processing facilities for volatile materials.

6.3 NUMBER OF COPIES

All copies of the site approval request are sent by the activity/region to the cognizant EFD/EFA/HQMC for action. All action on a site approval or a safety certification request must be documented on the original

NAVFAC Form 11010/31 (Parts I and II). The required number of copies of the request is determined by the type of project and the review process. One complete set of all documents should be retained in the activity files. The other sets should be forwarded to the EFD/EFA/HQMC for distribution as appropriate.

Copies of site approval requests for ammunitions and explosives:

- (a) Submitted for NOSSA review—4 copies
- (b) Submitted only to NOSSA LANT/PAC—2 copies

6.4 SPECIAL CONSIDERATIONS IN THE SITE APPROVAL PROCESS

Here are some special consideration in the site approval process.

6.4.1 SITING FOR FAMILY HOUSING PROJECTS

Site approval for family housing projects is requested and provided on a project basis rather than an individual housing unit basis. Site selection for family housing projects is started by the EFD/EFA on notification from the Housing Division at NAVFACHQ. The same procedures are used for family housing. You must obtain site approval before starting the Site Engineering Investigation (SEI) phase of family housing development.

6.4.2 NAVY PROJECTS ON NON-NAVY LAND

If Navy projects are to be located on land not owned by the Navy, site approval must come from the property owners. Follow the siting criteria and site approval procedures of the property owners(s) or host command. Where there are no established site planning criteria or site approval review/approval process for the non-Navy location, request Navy site approval review as described herein.

6.4.3 NON-NAVY PROJECTS ON NAVY LAND

Non-Navy owned facilities to be located on Navy property must follow the site approval procedures provided here.

6.4.4 CLASSIFIED SITE APPROVALS

Requests for site approvals that are classified are developed and submitted using the same procedures as unclassified requests. Appropriate procedures for handling classified material must, of course, be followed.

REQUEST FOR PROJECT SITE APPROVAL/EXPLOSIVES SAFETY CERTIFICATION NAVFAC 11010/31 (REV. 5-2001)

PART I

INSTRUCTIONS IN NAVFACINST 11010.45

SECTION A – INSTALLATION SUBMISSION

1. To:			2. From:		
3. Program Year:	4. Cost (\$000):	5. Type Funding	6. Activity UIC	7. Date:	
8. Category Code and Project Title:				9. Project Number	
10. Type of Project: <input type="checkbox"/> New Construction <input type="checkbox"/> Relocation of Structure <input type="checkbox"/> Other <input type="checkbox"/> Change Use <input type="checkbox"/> Maintenance and/or Repairs <input type="checkbox"/> Addition to Existing Facility <input type="checkbox"/> Repair by Replacement <input type="checkbox"/> Major Modification to Existing Facility <input type="checkbox"/> Demolition			11. Type of Request: <input type="checkbox"/> Airfield Safety Site Approval <input type="checkbox"/> Explosives Site/Safety Certification <input type="checkbox"/> EMR Site Approval <input type="checkbox"/> Resubmittal or Standard Site Approval (No Safety Criteria Involved)		
12. Project Description					
13. _____ Sets of Project Maps Attached			14. _____ Sets Part II Division(s) _____ Attached		

SECTION B – EFD REVIEW

1. Name/Code/Phone No. of Reviewer/E-Mail Address:			2. Date Received:		
3. Evaluation:					
4. Safety Review Requested: (check appropriate box(es)) <input type="checkbox"/> NOSSA <input type="checkbox"/> DDESB <input type="checkbox"/> SPAWAR <input type="checkbox"/> NAVAIR <input type="checkbox"/> CNO <input type="checkbox"/> OTHER				5. Date Forwarded:	
6. Date of Safety Certification: _____					

SECTION C – FINAL SITE APPROVAL ACTION

1. Approvals: <input type="checkbox"/> Site Approved <input type="checkbox"/> Site Disapproved <input type="checkbox"/> Deferred/Returned <input type="checkbox"/> Explosives Safety Certification Approved <input type="checkbox"/> Explosives Safety Certification DISAPPROVED <input type="checkbox"/> Interim Construction Waiver Approved		2. Certification Identification:	
		3. Remarks	
4. Other Approvals <input type="checkbox"/> Airfield Safety Waiver Required <input type="checkbox"/> Final Explosives Safety Review Required		5. Approving Official:	
		6. Date:	

PART II DIVISION A-EXPLOSIVES SAFETY

INSTRUCTIONS IN NAVFACINST 11010.45

1. NEW/Class/Division/ESQD arcs* of project:

2. CNO Waivers and Exemptions:

3. Personnel: (numbers):

	Proposed	Existing
Military:		
Civilian:		
Other:		
Total:		

4. Facility Number/Type

Personnel

NEW

Class/Division

Distance*
Actual/Required

5. Siting Rationale:

*Distance from project. Specify IB, (Inhabited Building); IL, (Intraline); IM, (Intermagazine); PTR, (Public Transportation Route); B (Barricaded); UB, (Unbarricaded)

6. Signature of Public Works/Base Civil Engineer (Name/Code) Incl E-Mail Address

9. Signature of Explosive Safety Officer/Installation Safety Officer
Incl. E-Mail Address

7. Telephone Numbers:

()
DSN

8. Date:

10. Telephone Numbers:

()
DSN

11. Date:

PART II DIVISION B-AIRFIELD SAFETY

INSTRUCTIONS IN NAVFACINST 11010.45

1. Runway Number and Type:		2. Airfield Elevation:	3. Ground Elevation at Project Site:
4. Lateral Distance from Runway Centerline:		5. Height of Facility:	
6. Horizontal Distance to Primary Surface or Edge of Parking Apron:			
7. Siting Rationale:			
8. Existing Waivers:			
9. Zoning (Include AICUZ zone & civilian zoning designation if applicable)			
10. Point of Contact: - Include E-Mail Address		12. Requested By:	
11. Telephone Numbers: () DSN		13. Date:	

PART II DIVISION C-ELECTROMAGNETIC SAFETY

INSTRUCTIONS IN NAVFACINST 11010.45

1. TRANSMITTER

(a) Manufacturer's Name/Type:

(b) Nomenclature:

(e) Output Power Information
(1) Peak Envelope power (PEP):

(g) Pulse Characteristics
(1) Pulse Width:

(c) Frequency Allocation Status:

(2) Mean/Average Power:

(2) Pulse Repetition
Frequency (PRF):

(d) Frequency Range:

(f) Modulation Type Information:
 Pulsed FM AM Other

(3) Duty Cycle:

2. LINEAR ANTENNA

(a) Manufacturer's Name/Type:

(b) Nomenclature:

(d) Height Above Ground:

(f) Polarization/Pattern:

(c) Dimensions:

(e) Elevation Angle:

(g) Main Beam Gain:

(h) Coverage Angle:

3. APERTURE ANTENNA

(a) Manufacturer's Name/Type:

(b) Nomenclature

(f) Horizontal Beam Width:

(i) Gain:
(1) Main Beam Gain:
(2) 1st Side Lobe Gain:

(c) Dimension:

(g) Vertical Beam Width:

(j) Coverage Angle:

(d) Height Above Ground:

(h) Scan Characteristics
(1) Type of Scanning:

(e) Minimum Antenna
Elevation Angle:

(2) Vertical/Horizontal Scanning Coverage:

4. HERP (Hazard of EMR to Personnel)

(a) Distance to nearest occupied building-describe:

(b) Description of intended method to restrict access to potential EMR hazard zones:

5. HERF (Hazard of EMR to Fuel)

(a) Distance to nearest fueling facility operation:

(b) Type of fuel in vicinity

6. HERO (Hazard of EMR to Ordnance) - Completed Part II Division A

7. Point of Contact (Include E-Mail address):

9. Requested By:

8. Telephone Number:

()

10. Date: